



United States
Environmental Protection Agency
Region 10

DREDGED MATERIAL MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT STATEMENT

McNary Reservoir and Lower Snake River Reservoirs

APPENDIX B
Cost Estimates

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FINAL DREDGED MATERIAL MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT STATEMENT McNary Reservoir and Lower Snake River Reservoirs

JULY 2002

ERRATA SHEET FOR APPENDIX B - COST ESTIMATES

This appendix has not been substantially changed from the draft and will not be reprinted. Please make the following changes to the draft appendix and consider the draft appendix with corrections as the final appendix.

Front cover:

Apply the attached label (FINAL, July 2002) on the front cover to the right of the draft date.

Footnotes throughout the appendix:

Change all footnote references from "Draft DMMP/EIS, October 2001" to "Final DMMP/EIS, July 2002."

Page B-II

Change the first bullet at the top of the page to read:

Mobilization from as far away as the mouth of the Columbia River was included to allow wider competition in contracting.

Page B-V

Change the third bullet from the bottom of the page to read:

Mobilization from as far away as the mouth of the Columbia River was included to allow wider competition in contracting.

Page B-VI

Add following the last bullet at the top of the page:

Disposal at the Joso site will actually require dredging of the access channel into the site at a cost during the first year of \$95,332 including indirect costs. However, since this cost is less than 1 percent of the first-year dredging and site construction cost (\$9,738,000), the Upland 3.a.b Cost Estimate was not revised. Details of the dredging cost breakdown can be seen in the Contingency Upland Disposal Cost Estimate on pages B-251 and B-252.

Section 3.1.3 Confluence Dredging - Snake and Clearwater Rivers [300,000 cy (229 367 m³) Dredging Program]

Page B-VII

Change the title to read:

Template Dredging: Year 1 to end of project [300,000 cy (229 367 m³)] and Upland Disposal Site Construction: Years 1, 21, 27, and 28

Section 3.1.3 Confluence Dredging - Snake and Clearwater Rivers [300,000 cy (229 367 m^3) Dredging Program]

Page B-VII

Change the 4th sentence from the end to read:

Construction of the RCC cap at the Chief Timothy transfer site and initial disposal in the Page Creek disposal site will occur in year 28.

* * * END OF CHANGES * * *

DREDGED MATERIAL MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT STATEMENT

McNARY RESERVOIR AND LOWER SNAKE RIVER RESERVOIRS

APPENDIX B

COST ESTIMATES

U.S. Army Corps of Engineers Walla Walla District 201 N. 3rd Avenue Walla Walla, WA 99362

October 2001

AQM03-02-1262

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1.0 COST ESTIMATE SUMMARY - GENERAL

The following is a summary of the assumptions and parameters used to develop estimated costs for disposal of dredged material. Detailed estimates follow this summary in the same order as they are presented in the summary. The costs include overhead and profit, but escalation and contingencies have not been included in the calculations.

In the following discussions, the two general dredging operations are described as template dredging and template maintenance dredging. The term "template dredging" is used to describe the process of initial cleanout of the defined dredging template. "Template maintenance dredging" is used to describe the dredging required to keep the defined template free of sediment for the remainder of the study period. Larger annual quantities of dredged material are projected for the initial effort to create the dredging template. Smaller annual quantities are projected for the period focused on maintaining the established template.

2.0 IN-WATER DISPOSAL ESTIMATES

These planning level estimates for disposal of dredged materials using in-water disposal were produced utilizing the Cost Engineering Dredge Estimating Program (CEDEP). The Government Estimate is based on the following assumptions:

- Work will be conducted 24 hours per day in three 8-hour shifts per day, 7 days a week, considering four holidays. Overtime hours are anticipated.
- Dredging operations will begin on December 15 and shall not continue after February 28 in any given year due to the fish window requirements.
- The prime contractor will perform all work.
- All in-water disposal sites are accessible without further dredging requirements.
- Dredging will be accomplished using 15-cubic yard (cy) [11.5-cubic meter (m³)] clamshell dredges in the Snake/Clearwater Rivers confluence area in the Lower Granite reservoir and 10-cy (7.6-m³) clamshell dredges in the other reservoirs. The use of clamshells and scows has been considered due to the anticipated existence of silt type materials within the confluence areas.
- Dredged material will be transported to in-water disposal sites with scows. No overflow will be allowed.
- This work will take place during winter months, but no adverse weather conditions other than normal winter work weather have been assumed.
- The anticipated types of soil to be encountered are sand, silts, gravels, and cobbles.
- Considerations for delays due to traffic and coordination efforts have been accounted for within the effective working time.
- All necessary labor will be available within the project location.

- Equipment will be mobilized from as far away as the mouth of the Columbia River to allow contractors from Portland and Seattle to compete.
- Turbidity monitoring will be required during the dredging operation.
- Sieve analysis testing for coarse-grained and fine-grained materials will be required for determining which disposal area to use.
- All equipment is considered owned no rental equipment is considered. All equipment other than dredging plant rates were computed based on Engineering Pamphlet (EP) 1110-1-8. All equipment other than dredging plant mobilization and demobilization costs are computed as 5 percent of direct costs.

2.1 Confluence Dredging - Snake and Clearwater Rivers

There are four different dredging programs proposed for the Snake/Clearwater Rivers confluence area. The Snake River dredging areas associated with the confluence dredging programs are assumed to extend from the vicinity of Silcott Island near Snake River Mile (RM) 131 to the U.S. Highway 12 Bridge upstream of the confluence of the Snake and Clearwater Rivers, located near Snake RM 139.5. The Clearwater River dredging areas are assumed to extend from the Snake/Clearwater Rivers confluence upstream to the Port of Lewiston (from Clearwater RM 0.00 to Clearwater RM 1.66). All material is assumed to be disposed of in-water at sites between Centennial Island located near Snake RM 120.5 and the upstream face of Lower Granite Dam (RM 108). The disposal sites are assumed adequate to contain all materials dredged.

The four dredging programs proposed for the Snake/Clearwater Rivers confluence area vary in the quantity of material removed annually. Two of the programs include an initial multi-year template dredging operation followed by a smaller-volume template maintenance dredging operation for the rest of the study period. The volumes and timing of the dredging associated with each of the programs are explained in the following sections.

2.1.1 Confluence Dredging - Snake and Clearwater Rivers [2 million cy (1 529 110 m³) Dredging Program]

The 2 million cy (1 529 110 m³) dredging program will consist of a template dredging operation and a template maintenance dredging operation.

2.1.1.1 Template Dredging: Years 1 through 20 [2 million cy (1 529 110 m³) annually]

Dredging will be done to excavate the defined dredging template during the first 20 years of the project, removing 2 million cy (1 529 110 m³) of material annually. Material will be hauled to designated spots and used to construct beneficial habitat. This portion of the work will cost approximately \$4.5 million annually.

2.1.1.2 Template Maintenance Dredging: Year 21 to end of project [725,000 cy (554 302 m³) annually]

Template maintenance dredging will continue from year 21 to the end of the project, removing approximately 725,000 cy (554 302 m³) of material annually. Material will be hauled to designated spots and used to construct beneficial habitat. This portion of the work will cost approximately \$2.4 million annually.

2.1.2 Confluence Dredging - Snake and Clearwater Rivers [1 million cy (764 555 m³) Dredging Program]

The 1 million cy (764 555 m³) dredging program will also consist of a template dredging operation and a template maintenance dredging operation.

2.1.2.1 Template Dredging: Years 1 through 10 [1 million cy (764 555 m³) annually]

Dredging will be done to excavate the defined dredging template during the first 10 years of the project, removing 1 million cy (764 555 m³) of material annually. Material will be hauled to designated spots and used to construct beneficial habitat. This portion of the work will cost approximately \$2.4 million annually.

2.1.2.2 Template Maintenance Dredging: Year 11 to end of project [325,000 cy (248 480 m³) annually]

Template maintenance dredging will continue from year 11 to the end of the project, removing approximately 325,000 cy (248 480 m³) of material annually. Material will be hauled to designated spots and used to construct beneficial habitat. This portion of the work will cost approximately \$1.3 million annually.

2.1.3 Confluence Dredging - Snake and Clearwater Rivers [300,000 cy (229 367 m³) Dredging Program]

The 300,000 cy (229 367 m³) dredging program includes only a template dredging component. Template dredging will continue throughout the project, removing approximately 300,000 cy (229 367 m³) of material annually. Material will be hauled to designated spots and used to construct beneficial habitat. This portion of the work will cost approximately \$1.2 million annually.

2.1.4 Confluence Dredging - Snake and Clearwater Rivers Maintenance Dredging Program

The navigation and facility maintenance dredging program will maintain the design templates of features within the confluence area such as the Federal navigation channel, recreational facilities, and irrigation intakes. Dredging will not extend outside the limits of the original design template of each feature.

Maintenance dredging will continue throughout the project, starting in year 5 and then again in year 10 when 41,500 cy (31 729 m³) of material will be removed from within the authorized navigation channel. At 10-year intervals thereafter, an additional 41,500 cy (31 729 m³) of material will be removed. Material will be hauled to designated spots and used to construct beneficial habitat. This portion of the work will cost approximately \$389,000 each year dredging takes place.

2.2 Dredging McNary Reservoir [32,000 cy (24 466 m³)]

The Columbia and Snake Rivers' McNary reservoir dredging areas are assumed to extend throughout the vicinity of the Ice Harbor Cut Navigation Channel from Snake RM 3 to Snake RM 9, located upstream of the confluence of the Columbia and Snake Rivers. All material is assumed to be disposed of between Columbia RM's 314.5 and 316.5.

Maintenance Dredging: 2-Year Intervals [32,000 cy (24 466 m³)]

Dredging operations in the McNary reservoir will take place on a semi-annual basis, removing approximately 32,000 cy (24 466 m³) with each effort. This portion of the work will cost approximately \$297,000 semi-annually.

2.3 Dredging Ice Harbor Reservoir [2,000 cy (1 529 m³)]

The Snake River's Ice Harbor reservoir dredging area is located downstream of Lower Monumental Dam. All material is assumed to be disposed of between Snake RM's 10 and 23.

Maintenance Dredging: 2-Year Intervals [2,000 cy (1 529 m³)]

Dredging operations in the Ice Harbor reservoir will take place on a semi-annual basis, removing approximately 2,000 cy (1 529 m³) with each effort. This portion of the work will cost approximately \$192,000 semi-annually.

2.4 Dredging Lower Monumental Reservoir [2,000 cy (1 529 m³)]

The Snake River's Lower Monumental reservoir dredging area is located downstream of Little Goose Dam and near the confluence of the Palouse and Snake Rivers. All material is assumed to be disposed of between Snake RM's 42 and 47.

Maintenance Dredging: 2-Year Intervals [2,000 cy (1 529 m³)]

Dredging operations in the Lower Monumental reservoir will take place on a semi-annual basis, removing approximately 2,000 cy (1 529 m³) with each effort. This portion of the work will cost approximately \$230,000 semi-annually.

2.5 Dredging Little Goose Reservoir [4,000 cy (3 058 m³)]

The Snake River's Little Goose reservoir dredging area is located downstream of Lower Granite Dam and at Schultz Bar, located near Snake RM 100. All material is assumed to be disposed of between Snake RM's 71 and 83.

Maintenance Dredging: 2-Year Intervals [4,000 cy (3 058 m³)]

Dredging operations in the Little Goose reservoir will take place on a semi-annual basis, removing approximately 4,000 cy (3 058 m³) with each effort. This portion of the work will cost approximately \$248,000 semi-annually.

3.0 UPLAND DISPOSAL ESTIMATES

These planning level estimates were produced utilizing the MICRO Computer Aided Cost Estimating System (MCACES) and the CEDEP. The Government Estimate is based on the following assumptions:

- Work will be conducted 24 hours per day in three 8-hour shifts per day, 7 days a week, considering four holidays. Overtime hours are anticipated.
- Dredging operations will begin on December 15 and shall not continue after February 28 in any given year to comply with agency requirements that prohibit in-water work during periods of fish migration.
- The prime contractor will perform all work.
- All disposal transfer sites are accessible without further dredging requirements.
- Dredging will be accomplished using 10-cy (7.6-m³) clamshell dredges and material will be transported on scows for disposal. The dredging material will be off-loaded from the barges on to the disposal area. The use of clamshells and scows has been considered due to the anticipated existence of silt type materials within the confluence areas.
- The anticipated types of soil to be encountered are sand, silts, gravels, and cobbles.
- Considerations for delays due to traffic and coordination efforts have been accounted for within the effective working time.
- No adverse weather conditions other than normal winter work weather have been assumed.
- All necessary labor will be available within the project location.
- Equipment will be mobilized from the mouth of the Columbia River to allow contractors from Portland and Seattle to compete.
- Turbidity monitoring will be required during the dredging operation.
- Sieve analysis testing for coarse-grained and fine-grained materials will be required for determining which disposal area to use.

 All equipment is considered owned - no rental equipment is considered. All equipment other than dredging plant rates were computed based on EP 1110-1-8. All equipment other than dredging plant mobilization and demobilization costs are computed as 5 percent of direct costs.

3.1 Confluence Dredging - Snake and Clearwater Rivers

For the upland disposal operation, the dredging programs are similar to those described for the in-water disposal operation. The dredging areas and volumes of dredged material removed are the same (see section 2.1), but the material is assumed to be disposed of in designated upland sites. The disposal sites are assumed to contain all materials dredged.

The following sections describe the dredging and disposal activities for the four dredging programs with emphasis on the development of the upland disposal sites.

3.1.1 Confluence Dredging - Snake and Clearwater Rivers [2 million cy (1 529 110 m³) Dredging Program]

The 2 million cy (1 529 110 m³) dredging program will consist of a template dredging operation and a template maintenance dredging operation.

3.1.1.1 Template Dredging: Years 1 through 20 [2 million cy (1 529 110 m³)] and Upland Disposal Site Construction: Years 1 and 2

The initial construction of the Chief Timothy transfer site and the Page Creek upland disposal site will occur in year 1. Upland disposal of dredged materials during the first year will be restricted to temporary placement of the materials at the Chief Timothy transfer site. Year 2 will include construction of the Chief Timothy transfer site roller-compacted concrete (RCC) cap and upland disposal of dredged materials at Page Creek. Dredging will remove approximately 2 million cy (1 529 110 m³) of material annually for the first 20 years to establish the defined dredging template. The estimated cost of this work is \$33.4 million over the first 2 years and \$20.2 million annually for years 3 through 20.

3.1.1.2 Template Maintenance Dredging: Year 21 to end of project [725,000 cy (554 302 m³)]

Starting in year 21, the dredging operations would be scaled back, reducing the quantity of dredged material to 725,000 cy (554 302 m³) annually. This amount of material would be disposed of at the Page Creek site through the remainder of the project. The estimated annual cost of this work is \$8.3 million.

3.1.2 Confluence Dredging - Snake and Clearwater Rivers [1 million cy (764 555 m³) Dredging Program]

The 1 million cy (764 555 m³) dredging program will also consist of a template dredging operation and a template maintenance dredging operation.

3.1.2.1 Template Dredging: Years 1 through 10 [1 million cy (764 555 m³)] and Upland Disposal Site Construction: Years 1 through 3

The initial construction of the Chief Timothy transfer site and the Page Creek upland disposal site will occur in year 1. Upland disposal of dredged materials during the first year will be restricted to temporary placement of the materials at the Chief Timothy transfer site. Year 3 will include construction of the Chief Timothy transfer site RCC cap and upland disposal of dredged materials at Page Creek. Dredging will remove approximately 1 million cy (764 555 m³) of material annually for the first 10 years to establish the defined dredging template. The estimated cost of this work is \$23.9 million over the first 3 years and \$10.3 million annually for years 4 through 10.

3.1.2.2 Template Maintenance Dredging: Year 11 to end of project [325,000 cy (248 480 m³)]

Starting in year 11, the dredging operations would be scaled back, reducing the quantity of dredged material to 325,000 cy (248 480 m³) annually. This amount of material would be disposed of at the Page Creek site through the remainder of the project. The estimated annual cost of this work is \$5.7 million.

3.1.3 Confluence Dredging - Snake and Clearwater Rivers [300,000 cy (229 367 m³) Dredging Program]

Template Dredging: Year 1 to end of project [300,000 cy (229 367 m³) and Upland Disposal Site Construction: Years 1, 21, and 27

The 300,000 cy (229 367 m³) dredging program includes only a template dredging component. Template dredging will continue throughout the project, removing approximately 300,000 cy (229 367 m³) of material annually. The upland disposal site at Joso will be constructed during the first year and dredged material will be deposited at the Joso site for the first 20 years of the project. In year 21, the Chief Timothy transfer site will be constructed. Starting in year 21 and continuing until year 28, all of the dredged material [300,000 cy (229 367 m³) annually] will be used to develop the Chief Timothy transfer site. In year 27, construction of the Page Creek upland disposal site will begin. Construction of the RCC cap at the Chief Timothy transfer site and initial construction of the Page Creek disposal site will occur in year 28. The total cost of the work through year 28 is estimated at \$122.6 million. From year 29 to the end of the project, the materials will be disposed of at the Page Creek site. The annual cost of this work is estimated at \$3.6 million.

3.1.4 Confluence Dredging - Snake and Clearwater Rivers (Maintenance Dredging Program)

The navigation and facility maintenance dredging program will maintain the design templates of features within the confluence area such as the Federal navigation channel, recreational facilities,

and irrigation intakes. Dredging will not extend outside the limits of the original design template of each feature.

Construction of the Joso disposal site and disposal of 41,500 cy (31 729 m³) of dredged material at the Joso site will occur in year 5. Maintenance dredging operations will dispose of an additional 41,500 cy (31 729 m³) of material at the Joso site in year 10 and at 10-year intervals after that until the end of the project. Initial construction of the Joso disposal site and placement of 41,500 cy (31 729 m³) of dredged material at the Joso site during the first year will cost \$3.2 million. Disposal of an additional 41,500 cy (31 729 m³) of dredged material during year 10 of the project will cost an additional \$1 million. Disposal of 41,500 cy (31 729 m³) at 10-year intervals during the remainder of the project will cost \$1 million per operation.

3.2 Dredging McNary Reservoir [32,000 cy (24 466 m³)]

The Columbia and Snake Rivers' McNary reservoir dredging areas are assumed to extend throughout the vicinity of the Ice Harbor Cut Navigation Channel from Snake RM 3 to Snake RM 9, located upstream of the confluence of the Columbia and Snake Rivers. All material is assumed to be disposed of in designated upland sites.

Maintenance Dredging: Year 1 to end of project [32,000 cy (24 466 m³)] and Upland Disposal Site Construction: Year 1

The first year of operation will include construction of the Joso site and upland disposal of 32,000 cy (24 466 m³) of dredged material. Semi-annual maintenance dredging will remove and dispose of 32,000 cy (24 466 m³) of dredged material at the Joso site. Initial construction of the Joso disposal site and disposal of 32,000 cy (24 466 m³) of material during the first year will cost \$2.9 million. The remainder of the work will cost approximately \$683,000 semi-annually.

3.3 Dredging Ice Harbor Reservoir [2,000 cy (1 529 m³)]

The Snake River's Ice Harbor reservoir dredging area is located downstream of Lower Monumental Dam. All material is assumed to be disposed of in designated upland sites.

Maintenance Dredging: Year 1 to end of project [2,000 cy (1 529 m³)]

Maintenance dredging will consist of removing 2,000 cy (1 529 m³) annually from the Ice Harbor reservoir, hauling the material to the Joso site, and disposing of the material at the Joso site. This portion of the work will cost approximately \$204,000 semi-annually.

3.4 Dredging Lower Monumental Reservoir [2,000 cy (1 529 m³)]

The Snake River's Lower Monumental reservoir dredging area is located downstream of Little Goose Dam and near the confluence of the Palouse and Snake Rivers. All material is assumed to be disposed of in designated upland sites.

Maintenance Dredging: Year 1 to end of project [2,000 cy (1 529 m³)]

Maintenance dredging will consist of removing 2,000 cy (1 529 m³) semi-annually from the Lower Monumental reservoir, hauling the material to the Joso site, and disposing of the material at the Joso site. This portion of the work will cost approximately \$208,000 semi-annually.

3.5 Dredging Little Goose Reservoir [4,000 cy (3 058 m³)]

The Snake River's Little Goose reservoir dredging area is located downstream of Lower Granite Dam and at Schultz Bar, near Snake RM 100. All material is assumed to be disposed of in designated upland sites.

Maintenance Dredging: Year 1 to end of project [4,000 cy (3 058 m³)]

Maintenance dredging will consist of removing 4,000 cy (3 058 m³) semi-annually from the Little Goose reservoir, hauling the material to the Joso site, and disposing of the material at the Joso site. This portion of the work will cost approximately \$244,000 semi-annually.

3.6 Dredging Contaminated Material [7,000 cy (5 352 m³)]

The Snake River dredging areas are assumed to extend from the vicinity of Silcott Island near Snake RM 131 to the State Highway 12 Bridge upstream of the confluence of the Snake and Clearwater Rivers, located near Snake RM 139.5. The Clearwater River dredging areas are assumed to extend from the Snake/Clearwater Rivers confluence upstream to the Port of Lewiston (from Clearwater RM 0.00 to Clearwater RM 1.66). All material is assumed to be disposed of utilizing a disposal area at Joso near Snake RM 56. The disposal site is assumed adequate to contain all materials dredged. It is anticipated that, on an annual basis, approximately 7,000 cy (5 352 m³) of material will be dredged that will be determined to contain contaminated materials that will require upland disposal at a site designed to contain such materials. A site will be developed at Joso that is appropriate for containment of contaminated materials.

Maintenance Dredging: Year 1 to end of project [7,000 cy (5 352 m³)] and Joso Contingency Upland Disposal Site Construction: Year 1

Initial construction of the Joso disposal site and disposal of approximately 7,000 cy (5 352 m³) of contaminated dredged material will take place in the first year. The estimated cost of initial construction, dredging, and disposal of materials in the first year is \$11,612,000. It was assumed that disposal of approximately 7,000 cy (5 352 m³) of contaminated dredged material will take place each confluence dredging operation. The estimated cost of this work is \$230,000 per year that dredging takes place in the confluence area.

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In-Water Summary

Dredge Material Management Study Dredging of Snake and Clearwater Rivers In-water Disposal

Description		Years	Estimated Quantity	U/M	Total \$ Costs Each Year of Dredging
Item 1 - Confluence Dredging Snake & Cle	earwater Rivers				
Item 1.a Template dredge operation Item 1.b Template maintenance dredge operation	eration	1-20 21-end	2,000,000 725,000	cy cy	\$4,451,000 \$2,367,000
Item 2 - Confluence Dredging Snake & Cle	earwater Rivers				
Item 2.a Template dredge operation Item 2.b Template maintenance dredge operation	eration	1-10 11-end	1,000,000 325,000	cy cy	\$2,416,000 \$1,280,000
Item 3 - Confluence Dredging Snake & Cle	earwater Rivers				
Item 3.a Template dredge operation		1-end	300,000	су	\$1,201,000
Item 4 - Confluence Dredging Snake & Cle	earwater Rivers				
Item 4.a Template maintenance dredge ope	eration	5, 10, 10- yr intervals	41,500	су	\$389,000
Item 5 - Dredging McNary Pool					
Item 5.a Template maintenance dredge ope	eration	1-end at 2- yr intervals	32,000	су	\$297,000
Item 6 - Dredging Ice Harbor Pool					
Item 6.a Template maintenance dredge ope	eration	1-end at 2- yr intervals	2,000	су	\$192,000
Item 7 - Dredging Lower Monumental Poo	ol				
Item 7.a Template maintenance dredge ope	eration	1-end at 2- yr intervals	2,000	су	\$230,000
Item 8 - Dredging Little Goose Pool					
Item 8.a Template maintenance dredge ope	eration	1-end at 2- yr intervals	4,000	су	\$248,000
Note: Total Costs include Overhead and	Profit				

Note:

Total Costs include Overhead and Profit. Escalation and contingencies are not included.

Points of Contact:

Lead Estimator - Bob Hynek (509)527-7513 Estimator - Julie Davin (509)527-7514 In-Water 1.a

Mon 14 Aug 2000 Eff. Date 05/01/99

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMW2H: Dredging 2 Millcy Confl. Inwater - DMMS Dredging
PLANNING ESTIMATE

TIME 12:04:51

TITLE PAGE

Dredging 2 Millcy Confl. Inwater DMMS Dredging of Snake & Clearwater Rivers with Inwater Disposal

Designed By: Walla Walla District COE Estimated By: R. Hynek and J. Davin

Prepared By: Cost Engineering Branch Kim Callan, Chief

05/28/99 05/01/99 60 Days

Preparation Date: Effective Date of Pricing: Est Construction Time:

7.90% Sales Tax: M C A C E S F O R W I N D O W S Software Copyright (c) 1985-1998 by Building Systems Design, Inc. Release 1.2c

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UPB ID: UP99EA CREW ID: NAT99A

EQUIP ID: NAT97C LABOR ID: NWW99D

Mon 14 Aug 2000 Eff. Date 05/01/99 PROJECT NOTES

Tri-Service Automated Cost Engineering System (TRACES)
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PLANNING ESTIMATE PROJECT DMMW2M:

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Description:

The Snake River dredging areas are assumed to extend from the vicinity of Silcott Island near Snake River Mile 131 upstream to the State Highway 12 Silcott Island near Snake River Mile 131 upstream of the confiluence of the Snake and Clearwater Rivers, located n'ar Snake River Mile 139.7. The Clearwater River dredging areas are assumed to extend from the Snake River confluence upstream to the Port of Lewiston, from Clearwater River Mile 0.00 to Clearwater River Mile 1.66.
All material assumed to be disposed of from downstream of Centennial Island located near Snake River Mile 120.5 to the upstream face of Lower Granite Dam River Mile 108. The disposal site is assumed adequate to contain all materials dredged.

Basis of Design:

Planning level estimate produced utilizing the Cost Engineering Dredge Estimating Program (CEDEP)

Overtime is anticipated. The Government Estimate is based on a 24 hour operation. Work shall be conducted on a 24 hr/day, 3-8 hour shifts/day, 7 days/week, considering 4 holidays.

Construction Windows:

Dredging operations will begin on 15 December, and shall not continue after 28 Feb, in any given year, due to the fish window requirements.

No Sub Contracting considered all work to be performed by Prime Contractor. Sub Contracting Plan:

Site Access:

It is assumed all Disposal Transfer Sites & the In-water Disposal sites are accessible without further dredging requirements.

Common dredging methods using 15cy clamshell dredges, with the use of scows for in-water disposal. Construction Methodology:

This work will take place during winter months. The anticipated types of soil to be incountered are sand/silts/gravels/cobbles. The use of Clamshells and Scows has been considered, due to the anticipated existence of silt type materials within the Confluence areas. Considerations for delays due to traffic, and coordination efforts have been accounted for within the effective working time. No adverse weather conditions other than normal winter work weather has been assumed.

Equipment/Labor Availability & Distance Traveled:

Assume Tabor will be available within the project location. Equipment wobblistation will be from the Mouth of the Columbia River to the Confluence of the Snake and Clearwater Rivers, approximately 463 River Miles to allow contractors from Portland & Seattle to compete.

Environmental Concerns: Turbidity monitoring will be required during the dredging operation. Sieve

EQUIP ID: NAT97C

UPB ID: UP99EA CREW ID: NAT99A

LABOR ID: NWW99D

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PROJECT DMM2M: Dredging 2 Millcy Confl. Inwater - DMMS Dredging
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analysis testing for course grained and fine grained materials will be required for determining location of disposal area to use. No overflow will be allowed.

Effective dates for: Labor: General Decision Number WA990001, Modification #1 dated 3/1/99, Equipment: Cost Engineering Dredge Estimating Programs (CEDEP) and Historical Dredging Equipment information.

LABOR ID: NWW99D EQUIP ID: NAT97C

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

UPB ID: UP99EA CREW ID: NAT99A

Currency in DOLLARS

EQUIP ID: NAT97C

LABOR ID: NWW99D

Tri-Service Automated Cost Engineering System (TRACES)
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0.01. Prime Contractor (AA)

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Project Distributed Costs

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OTHER TOTAL COST UNIT COST

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0.01. 0. Overhead Items - AA
0.01. 0.11. Job Office Overhead
0.01. 0.11. A. Supervision and Management
0.01. 0.11. A. Includes all top field management personnel, superintendents and
non-working foremen, and their subsistence, travel, vehicles, supplies and
miscellaneous.

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> General Superintendent			TOTAL Supervision and Management
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Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMN2M: Dreeging 2 Milloy Confi. Inwater - DMMS Dredging
PLANNING ESTIMATE
Project Distributed Costs

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1776.66 539.37 5032.07 TOTAL COST UNIT COST 3,553 539.37 200.00 5,032 OTHER 0.00 0.00 200.00 400 HAT 0.00 539.37 1,079 0.00 EQUIP 0.00 0.00 0.00 LAB 3,553 0.00 0.00 3,553 B. Administration Job Office and all field administrating, accounting purchasing inventory, security, and personnel. Also their subsistence and travel, offices, vehicles, supplies and miscellaneous items to run the field office are included here. See item (C) for warehouse and warehouse 0.00 0.00 0.00 0 MHRS QUANTY UOM 2.00 MO 2.00 MO 2.00 MO 1.00 MO > Office - Supplies
Assume 5% of Office Labor costs. TOTAL Administration Job Office > Telephone Usage Fees > Payroll Timekeepers FOP USR USR 0.01. 0.11. 0.01. Prime Contractor (AA)

EQUIP ID: NAT97C LABOR ID: NWW99D

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DWGWZM: Dredging 2 Willcy Confl. Inwater - DWHS Dredging
PLANNING ESTIMATE
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TOTAL COST UNIT COST 1000.00 671.99 161.91 1000.00 161.91 671.99 1000.00 0.00 OTHER 0.00 MAT 0.00 161.91 0.00 EQUIP 0.00 00.0 671.99 CAB 0.00 0.00 0.00 E. Quality Control and Testing Includes personnel, vehicles, equipment, and supplies to produce all QC reports, QC inspections, and all other contract quality requirements. Also includes their subsistence and travel, vehicles, supplies and miscellaneous MHRS 0.00 0.00 0.00 QUANTY UOM õ 2.00 EA 2.00 MO 2.00 <01440 1161 > Mobile Laboratory 22'Long Rented
(for field testing) Testing
Equipment not included. <01525 1113 > 4x4 3/4T Pickup (Monthly Cost)
Assume 2/3-time Standby > Prepare QC Plan USR M CIV L CIV 0.01. 0.11. 0.01. Prime Contractor (AA)

3667.81

3,668

2,000

324

1,344

0

0

1.00 MO

TOTAL Quality Control and Testing

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Currency in DOLLARS

EQUIP ID: NAT97C LABOR ID: NWW99D

CREW ID: NAT99A UPB ID: UP99EA

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DNEWZH: Dredging 2 Whiltcy Confi, Inwater - DNMY Dredging
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TOTAL COST UNIT COST OTHER MAT EQUIP LAB MHRS G. Sanitation Fac & Temp Bldgs Includes sanitation facilities, misc. buildings, yards, and building costs not otherwise classified. But it does not include all utilities costs. QUANTY UOH 0.01. 0.11. 0.01. Prime Contractor (AA)

M CIV

2.00 MO <01510 6211 > Construction Portable Toilet
Weekly Service

TOTAL Sanitation Fac & Temp Bldgs

80.86 162 0.00 0.00 1.00 MO

80.86

0.00

161.72

162

LABOR ID: NWW99D EQUIP ID: NAT97C

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMW2H: Dredging 2 Milloy Confl. Inwater - DMMS Dredging
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4.63 TOTAL COST UNIT COST 88.33 690.57 425.16 9021.36 30030.13 30,030 88.33 4.63 690.57 9,021 30,030 691 2,400 0.00 00.0 00.0 00.0 2,400 OTHER 0.00 00.0 1,564 MAT 00.0 00.0 0 1,564 4.63 8,625 696'6 696'6 EQUIP 425.16 0.00 0.00 16,097 LAB 00.0 396 16,097 H. General Equipment Expenses
Includes equipment not required by specific work items. Also includes
testing and rental of equipment when not charged to a specific bid item or
items of work. Inspection fees and permits are included in mob and demob
items. 12.00 0.00 MHRS 0.00 12 0.00 12 12 QUANTY UOM 1.00 MO 2.00 MO 1.00 MO 40.00 HR 1.00 EA 852.00 HR > LITE SET, 2L/1000W, SKW-GEN,TRLR REF. BP 1110-1-8 5.0 KW 2/1000W, W/GEN SET, TRLR MTD > CR, ME, CWLR, LIFTING, 85T/160'BOOM Sedan/Pickup (Monthly Cost) Assume 2/3-time Standby <01525 2124 > Crane Testing - 75 to 100 tons Allow four hours per test. TOTAL General Equipment Expenses TOTAL Job Office Overhead TOTAL Overhead Items - AA <01525 1111 > Sedan/Pickup MIL MIL L CIV L USR 0.01. 0.11. 0.01. Prime Contractor (AA)

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UPB ID: UP99EA

CREW ID: NAT99A

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Tri-Service Automated Cost Engineering System (TRACES)
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01. Snake River DHMS 99

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TOTAL COST UNIT COST OTHER MAT EQUIP LAB MHRS QUANTY UOM 01.12. Navigation, Ports & Harbors

01. Snake River DMMS 99

01.12. Navigation, Ports & Harbors 01.12.06. Dredging Alvers 01.12.06.01. Mechanical Dredging 01.12.06.01. Mechanical Dredging

01.12.06.01.001-_01AA. Mob. & Demob. Excavation Dredges

USR AA <	> Mob & Demob.Main Dredging Equip. Clam to Lewiston	1.00 JB	0.00	0.00	0.00	0.00 280562.00 0 280,562	00 280562.00 62 280,562 280562.00	80562.0
	TOTAL Mob. & Demob. Excavation Dredges 1.00 JB	1.00 JB		0	0	0 0 0 280,562	62 280,562 280562.00	80562.0
	TOTAL Mob. & Demob. Equipment	1.00 JB	0	0	0	0 0 0 280,562	62 280, 562 280562.00	80562.0

EQUIP ID: NAT97C LABOR ID: NWW99D

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DWRW2N: Dredging 2 Milloy Confi. Inwater - DWNS Dredging
DANNING ESTIMATE
01. Snake River DWNS 99

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1.70 1.70 TOTAL COST UNIT COST 3680562 3680562 3680562 3680562 1.70 3,400,000 3,400,000 3,680,562 3,680,562 3,680,562 3,680,562 0.00 1.70 0 3,400,000 0 3,400,000 OTHER 0 3,400,000 0 3,680,562 0 3,680,562 0 3,680,562 0 3,680,562 MAT 0.00 EQUIP 0.00 LAB MHRS 0.00 QUANTY UOM 01.12.06.01.002-_02BB. Dredging & Haul Mat. to Disposal Includes a cost of .05 cents per cy for dewatering barge. TOTAL Dredge, Haul & Off-load Material 2000000 CY 2000000 CY TOTAL Dredging & Haul Mat. to Disposal 2000000 CY 1.00 EA 1.00 EA 1.00 EA 1.00 EA 01.12.06.01.002-. Dredge, Haul & Off-load Material Includes a cost of .05 cents per cy for dewatering barge. > Cost of Dredging Material Costs were developed in CEDEP see backup TOTAL Navigation, Ports & Harbors TOTAL Mechanical Dredging TOTAL Snake River DMMS 99 TOTAL Dredging Rivers USR AA < 01.12. Navigation, Ports & Harbors

EQUIP ID: NAT97C

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

LABOR ID: NWW99D

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TOTAL Dredging 2 Millcy Confl. Inwater

Mon 14 Aug 2000 Eff. Date 05/01/99

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DHRWZH: Dredging 2 Millcy Confl. Inwater - DHMS Dredging
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SUMMARY PAGE

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LABOR ID: NWW99D EQUIP ID: NAT97C

Currency in DOLLARS

UPB ID: UP99EA

CREW ID: NAT99A

Mon 14 Aug 2000 Eff. Date 05/01/99 ERROR REPORT

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM2H: Dredging 2 Millcy Confl. Inwater - DMMS Dredging
PLANNING ESTIMATE

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ERROR PAGE

No errors detected...

* * * END OF ERROR REPORT

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Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

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	DETAILED ESTIMATE	
	01. Prime Contractor (AA) 0. Overhead	

No Backup Reports...

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Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM725: Dredging 725K cy Confl. Inwater - DMMS Dredging
PLANNING ESTIMATE

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TITLE PAGE

Dredging 725K cy Confl. Inwater DMMS Dredging of Snake & Clearwater Rivers with Inwater Disposal

Designed By: Walla Walla District COE Estimated By: R. Hynek and J. Davin

Cost Engineering Branch Kim Callan, Chief Prepared By:

05/28/99 05/01/99 60 Days Preparation Date: Effective Date of Pricing: Est Construction Time:

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CREW ID: NAT99A UPB ID: UP99EA

EQUIP ID: NAT97C LABOR ID: NWW99D

Mon 14 Aug 2000 Eff. Date 05/01/99 PROJECT NOTES

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM725: Dredging 725K cy Confl. Inwater - DMMS Dredging
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TITLE PAGE

Project Description:

Silcott Island near Snake River Mile 131 upstream to the State Highway 12 bridge upstream of the confluence of the Snake and Clearwater Rivers, located near Snake River Mile 139.5. The Clearwater River dredging areas are assumed to extend from the Snake River confluence upstream to the Port of Lewiston. If from Clearwater River Hile 0.00 to Clearwater River Hile 1.66.
All material assumed to be disposed of from downstream of Centennial Island located near Snake River Wile 120.5 to the upstream face of Lower Granite Dam River Hile 108. The disposal site is assumed adequate to contain all The Snake River dredging areas are assumed to extend from the vicinity of materials dredged.

Basis of Design:

Planning level estimate produced utilizing the Cost Engineering Dredge Estimating Program (CEDEP)

Overtime is anticipated. The Government Estimate is based on a 24 hour operation. Work shall be conducted on a 24 hr/day, 1-8 hour shifts/day, days/week, considering 4 holidays.

Construction Windows:

and shall not continue after Dredging operations will begin on 15 December, and shall not con 28 Feb, in any given year, dus to the fish window requirements.

Sub Contracting Plan:

No Sub Contracting considered all work to be performed by Prime Contractor.

It is assumed all Disposal Transfer Sites & the In-water Disposal sites are accessible without further dredging requirements.

Construction Methodology:

Common dredging methods using 15cy clamshell dredges, with the use of scows

Conditions:

This work will take place during winter months. The anticipated types of soil to be incountered are sand/silts/gravels/cobbles. The use of Clashabils and Scows has been considered, due to the anticipated existence of silt type materials within the Confluence areas. Considerations for delays due to traffic, and coordination efforts have been accounted for within the effective working time. No adverse weather conditions other than normal winter work weather has been assumed.

Equipment/Labor Availability & Distance Traveled: Assume labor will be available within the project location. Equipment Mobilization will be from the Mouth of the Columbia River to the Confluence of the Snake and Clearwater Rivers, approximately 463 River Miles to allow contractors from Portland & Seattle to compete.

Environmental Concerns:

Turbidity monitoring will be required during the dredging operation. Sieve

EQUIP ID: NAT97C LABOR ID: NWW99D

Currency in DOLLARS

UPB ID: UP99EA

CREW ID: NAT99A

Mon 14 Aug 2000 Eff. Date 05/01/99 PROJECT NOTES

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM725: Dredging 725K cy Confl. Inwater - DMMS Dredging
PLANNING ESTIMATE

TIME 12:06:51

TITLE PAGE

analysis testing for course grained and fine grained materials will be required for determining location of disposal area to use. No overflow will be allowed.

Effective dates for: Labor: General Decision Number WA990001, Modification #1 dated 1/1/99. Equipment: Cost Engineering Dredge Estimating Programs (CEDEP) and Historical Dredging Equipment information.

LABOR ID: NWW99D EQUIP ID: NAT97C

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

Tri-Service Automated Cost Engineering System (TRACES).
PROJECT DMM725: Dredging 725K cy Confl. Inwater - DMMS Dredging
PLANNING ESTIMATE
** PROJECT INDIRECT SUMMARY - CSI ITEM **

SUMMARY PAGE

TIME 12:06:51

	QUANTITY UOM	QUANTITY UOM TOTAL DIRECT	FOOH	ноон	PROF M	PROF Misc Ta	BOND	TOTAL COST UNIT COST	UNIT COST
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01 Snake River DMMS 99									
01.12 Navigation, Ports & Harbors									
01.12.06 Dredging Rivers									
01.12.06.01 Mechanical Dredging									
01.12.06.01.001- Mob. & Demob. Equipment									
01.12.06.01.00101AA Mob. & Demob. Excavation Dredges	1.00 JB	249,868	3,870	20,299	27,404	0	3,465	304,906	304,906 304905.68
TOTAL Mob. & Demob. Equipment	1.00 JB	249,868	3,870	20,299	27,404	0	3,465	304,906	304,906 304905.68
01.12.06.01.002- Dredge, Haul & Off-load Material									
01.12.06.01.00202BB Dredging & Haul Mat. to Disposal 725000.00 CY	725000.00 CY	1,689,250	26,161	137,233	185,264	0	23,428	2,061,336	2.84
TOTAL Dredge, 'laul & Off-load Material 725000.00 CY	725000.00 CY	1,689,250	26,161	137,233	185,264	0	23,428	2,061,336	2.84
TOTAL Mechanical Dredging	1.00 EA	1,939,118	30,030	157,532	212,668	0	26,893	2,366,242	2366242
TOTAL Dredging Rivers	1.00 EA	1,939,118	30,030	157, 532	212,668	0	26,893	2,366,242	2366242
TOTAL Navigation, Ports & Harbors	1.00 EA	1,939,118	30,030	157,532	212,668		26,893	2,366,242	2366242
TOTAL Snake River DMMS 99	1.00 EA	1,939,118	30,030	157, 532	212,668		26,893	2,366,242	2366242
TOTAL Dredging 725K cy Confl. Inwater	1.00 EA	1,939,118	30,030	157,532	212,668		26,893	2,366,242	2366242

LABOR ID: NWW99D

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

EQUIP ID: NAT97C

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM725: Dredging 725K cy Confl. Inwater - DMMS Dredging
PLANNING ESTIMATE

TIME 12:06:51

ERROR PAGE 1

No errors detected...

Mon 14 Aug 2000 Eff. Date 05/01/99 ERROR REPORT

END OF ERROR REPORT

EQUIP ID: NAT97C LABOR ID: NWW99D

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

2000	£f. Date 05/01/99	NTENTS
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Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM725: Dredging 725K cy Confl. Inwater - DMMS Dredging
PLANNING ESTIMATE

TIME 12:06:51

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No Backup Reports...

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PROJECT INDIRECT SUMMARY - CSI ITEM

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In-Water 2.a

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DAMMIM: Dredging 1 Millcy Confl. Inwater - DAMS Dredging
PLANNING ESTIMATE

TIME 12:05:47

TITLE PAGE

Dredging 1 Millcy Confl. Inwater DMMS Dredging of Snake & Clearwater Rivers with Inwater Disposal

Designed By: Walla Walla District COE Estimated By: R. Hynek and J. Davin

Cost Engineering Branch Kim Callan, Chief Prepared By:

05/28/99 05/01/99 60 Days Preparation Date: Effective Date of Pricing: Est Construction Time:

7.908 Sales Tax: M C A C E S F O R W I N D O W S Software Copyright (c) 1985-1998 by Building Systems Design, Inc. Release 1.2c

Currency in DOLLARS

EQUIP ID: NAT97C

LABOR ID: NWW99D

CREW ID: NAT99A UPB ID: UP99EA

Tri-Service Automated Cost Engineering System (TRACES) T DAMMIM: Dredging 1 Millcy Confl. Inwater - DAMS Dredging PLAMMING ESTIMATE PROJECT DMMMIM:

TIME 12:05:47

TITLE PAGE

Description:

Siloctt Island near Snake River Mile 131 upstream to the State Highway 12 bridge upstream of the confluence of the Snake and Clearwater Rivers, located near Snake River Mile 139.5. The Clearwater River dredging areas are assumed from the Snake River confluence upstream to the Port of Lewiston, from Clearwater River Hile 0.00 to Clearwater River Mile 1.66.
All material assumed to be disposed of from downstream of Centennial Island located near Snake River Mile 120.5 to the upstream face of Lower Granite Dam River Mile 108. The disposal site is assumed adequate to contain all areas are assumed to extend from the vicinity of materials dredged.

Basis of Design:

Planning level estimate produced utilizing the Cost Engineering Dredge Estimating Program (CEDEP)

operation. Work shall be conducted on a 24 hr/day, 3-8 hour shifts/day, 7 days/week, considering 4 holidays. Overtime is anticipated. The Government Estimate is based on a 24 hour

Dredging operations will begin on 15 December, and shall not co 28 Feb. in any given year, due to the fish window requirements. Construction Windows:

Sub Contracting Plan:

No Sub Contracting considered all work to be performed by Prime Contractor.

Site Access:

It is assumed all Disposal Transfer Sites & the In-water Disposal sites are accessible without further dredging requirements.

Construction Methodology:

Common dredging methods using 15cy clamshell dredges, with the use of scows for in-water disposal.

Conditions:

This work will take place during winter months. The anticipated types of soil to be incountered are sand/silts/gravels/cobbles. The use of Clamshells and Scows has been considered, due to the anticipated existence of silt type materials within the Confluence areas. Considerations for delays due to traffic, and coordination efforts have been accounted for within the effective working time. No adverse weather conditions other than normal winter work weather has been assumed.

Equipment/Labor Availability & Distance Traveled:

Assume labor will be available within the project location. Equipment Mobilization will be from the Mouth of the Columbia River to the Confluence of the Snake and Clearwater Rivers, approximately 463 River Miles to allow contractors from Portland & Seattle to compete.

Environmental Concerns:

Turbidity monitoring will be required during the dredging operation. Sieve

Currency in DOLLARS

EQUIP ID: NAT97C LABOR ID: NWW99D

UPB ID: UP99EA CREW ID: NAT99A

Mon 14 Aug 2000 Eff. Date 05/01/99 PROJECT NOTES

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMIM: Dredging 1 Millcy Confl. Inwater - DMMS Dredging
PLANNING ESTIMATE

TIME 12:05:47

TITLE PAGE

analysis testing for course grained and fine grained materials will be required for determining location of disposal area to use. No overflow will be allowed.

Effective dates for: Labor: General Decision Number WA990001, Hodification #1 dated 3/1/99. Equipment: Cost Engineering Dredge Estimating Programs (CEDEP) and Historical Dredging Equipment information.

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

LABOR ID: NWW99D EQUIP ID: NAT97C

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DHWMIN: Dredging 1 Milloy Conft. Inwater - DHMS Dredging
PLANNING ESTIMATE
** PROJECT INDIRECT SUMMARY - CSI ITEM **

SUMMARY PAGE

TIME 12:05:47

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	QUANTITY UOM	TOTAL DIRECT	FOOH	ноон	PROF Misc Ta	sc Ta	BOND	TOTAL COST UNIT COST	NIT COST
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01 Snake River DMMS 99									
01.12 Navigation, Ports & Harbors									
01.12.06 Dredging Rivers									
01.12.06.01 Mechanical Dredging									
01.12.06.01.001- Mob. & Demob. Equipment									
01.12.06.01.00101AA Hob. & Demob. Excavation Dredges	1.00 JB	280,562	4,254	22,785	30,760	0	3,879	342,241 342240.87	42240.87
TOTAL Mob. & Demob. Equipment	1.00 JB	280,562	4,254	22,785	30,760	0	3,879	342,241 342240.87	42240.87
01.12.06.01.002- Dredge, Haul & Off-load Material									
01.12.06.01.00202BB Dredging & Haul Mat. to Disposal	1000000 CY	1,700,000	25,776	138,062	186, 384	0	23,506	2,073,729	2.07
TOTAL Dredge, Haul & Off-load Material	1000000 CY	1,700,000	25,776	138,062	186,384	0	23,506	2,073,729	2.07
TOTAL Mechanical Dredging	1.00 EA	1,980,562	30,030	160,847	217,144	0	27,386	2,415,970	2415970
TOTAL Dredging Rivers	1.00 EA	1,980,562	30,030	160,847	217,144	0	27,386	2,415,970	2415970
TOTAL Navigation, Ports & Harbors	1.00 EA	1,980,562	30,030	160,847	217,144	0	27,386	2,415,970	2415970
TOTAL Snake River DMMS 99	1.00 EA	1,980,562	30,030	160,847	217,144	0	27,386	2,415,970	2415970
TOTAL Dredging 1 Millcy Confl. Inwater	1.00 EA	1,980,562	30,030	160,847 217,144	217,144	0	27,386	2,415,970	2415970

EQUIP ID: NAT97C LABOR ID: NWW99D

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DHMMIN: Dredging 1 Hillcy Confl. Inwater - DHMS Dredging
PLANNING ESTIMATE

TIME 12:05:47 ERROR PAGE

No errors detected...

Mon 14 Aug 2000 Eff. Date 05/01/99 ERROR REPORT

* * * END OF ERROR REPORT * * *

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

LABOR ID: NWW99D EQUIP ID: NAT97C

Mon 14 Aug 2000 Eff. Date 05/01/99 TABLE OF CONTENTS

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DWGMIM: Dredging 1 Millcy Confl. Inwater - DWMS Dredging
PLANNING ESTIMATE

TIME 12:05:47 CONTENTS PAGE 1

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PROJECT INDIRECT SUMMARY - CSI ITEM.......

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SUMMARY PAGE

No Detailed Estimate...

No Backup Reports...

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In-Water 2.b

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM125: Dredging 125K cy Confl. Inwater - DMMS Dredging
PLANNING ESTIMATE

TIME 12:07:40

TITLE PAGE

Dredging 125K cy Confl. Inwater DMMS Dredging of Snake & Clearwater Rivers with Inwater Disposal

Designed By: Walla Walla District COE Estimated By: R. Hynek and J. Davin

Cost Engineering Branch Kim Callan, Chief Prepared By:

05/28/99 05/01/99 60 Days Preparation Date: Effective Date of Pricing: Est Construction Time:

7.908 Sales Tax: M C A C E S F O R W I N D O W S Software Copyright (c) 1985-1998 by Building Systems Design, Inc.

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

EQUIP ID: NAT97C LABOR ID: NWW99D

Mon 14 Aug 2000 Eff. Date 05/01/99 PROJECT NOTES

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM125: Dredging 125K cy Confl. Inwater - DMMS Dredging
PLANNING ESTIMATE

TIME 12:07:40

TITLE PAGE

Project Description

Silcott Island near Shake Niver Mile 111 upstream to the State Highway 12 bridge upstream of the confluence of the Shake and Clearwater Rivers, located near Shake River Mile 119.5. The Clearwater River dredding areas are assumed to extend from the Shake River confluence upstream to the Port of Lewiston, All material assumed to be disposed of from downstream of Centennial Island located near Shake River Mile 10.6 to the upstream face of Lower Granite Dam River Mile 10.6 to the upstream face of Lower Granite Dam River Mile 10.8 The disposal site is assumed adequate to contain all from the vicinity of The Snake River dredging areas are assumed to extend materials dredged.

Basis of Design:

Planning level estimate produced utilizing the Cost Engineering Dredge Estimating Program (CEDEP)

Overtime:

Overtime is anticipated. The Government Estimate is based on a 24 hour operation. Work shall be conducted on a 24 hr/day, 3-8 hour shifts/day, 7 days/week, considering 4 holidays.

Construction Windows:

Dredging operations will begin on 15 December, and shall not continue after 28 Feb. in any given year, due to the fish window requirements.

No Sub Contracting considered all work to be performed by Prime Contractor. Sub Contracting Plan:

It is assumed all Disposal Transfer Sites & the In-water Disposal sites are Site Access:

accessible without further dredging requirements.

Construction Methodology: Common dredging methods using 15cy clamshell dredges, with the use of scows

for in-water disposal.

This work will take place during winter months. The anticipated types of soil to be incountered are sand/silts/gravels/cobbles. The use of Clamshells and Scows has been considered, due to the anticipated existence of silt type materials within the Confluence areas. Considerations for delays due to traffic, and coordination efforts have been accounted for within the effective working time. No adverse weather conditions other than normal winter work weather has been assumed. Conditions:

Equipment/Labor Availability & Distance Traveled:
Assume labor will be available within the project location. Equipment Mobilization will be from the Mouth of the Columbia River to the Confluence of the Snake and Clearwater Rivers, approximately 463 River Miles to allow contractors from Portland & Seattle to compete.

Environmental Concerns: Turbidity monitoring will be required during the dredging operation. Sieve

Currency in DOLLARS

EQUIP ID: NAT97C LABOR ID: NWW99D

ID: UP99EA UPB CREW ID: NAT99A

Mon 14 Aug 2000 Eff. Date 05/01/99 PROJECT NOTES

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM325: Dredging 325K cy Confl. Inwater - DMMS Dredging
PLANNING ESTIMATE

TITLE PAGE

analysis testing for course grained and fine grained materials will be required for determining location of disposal area to use. No overflow will be allowed.

Effective dates for: Labor: General Decision Number WA990001, Modification #1 dated 1/1/99. Equipment: Cost Engineering Dredge Estimating Programs (CEDEP) and Historical Dredging Equipment information.

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EQUIP ID: NAT97C LABOR ID: NWW99D

Currency in DOLLARS

UPB ID: UP99EA

CREW ID: NAT99A

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM125: Dredging 125K cy Confl. Inwater - DMMS Dredging
PLANNING ESTIMATE

** PROJECT INDIRECT SUMMARY - CSI ITEM **

SUMMARY PAGE

TOTAL COST UNIT COST BOND PROF Misc Ta HOOH FOOH QUANTITY UOM TOTAL DIRECT

01 Snake River DMMS 99

01.12 Navigation, Ports & Harbors

01.12.06 Dredging Rivers

01.12.06.01 Mechanical Dredging

01.12.06.01.001- Mob. & Demob. Equipment

209,438 209437.62 209,438 209437.62 2,641 2,641 0 18,800 18,800 13,926 13,926 4,914 4,911 169, 157 169,157 1.00 JB 1.00 JB 01.12.06.01.001-_01AA Mob. & Demob. Excavation Dredges TOTAL Mob. & Demob. Equipment

01.12.06.01.002- Dredge, Haul & Off-load Material

3.29 1279797 1279797 1279797 1279797 1279797 1,070,360 1,279,797 1,070,360 1,279,797 1,279,797 1,279,797 1,279,797 16,137 16, 137 13,496 13,496 16,137 16,137 16,137 0 0 0 114,878 114,878 114,878 96,079 96,079 114,878 114,878 85,095 85,095 85,095 85,095 85,095 71,169 71,169 25,116 30,030 25, 116 30,030 30,030 30,030 30,030 864,500 1,033,657 864,500 1,033,657 1,033,657 1,033,657 1,033,657 01.12.06.01.002-_028B Dredging, Haul Mat. to Disposal 325000.00 CY TOTAL Dredge, Haul & Off-load Material 325000.00 CY 1.00 EA 1.00 EA 1.00 EA 1.00 EA 1.00 EA TOTAL Dredging 325K cy Confl. Inwater TOTAL Navigation, Ports & Harbors TOTAL Snake River DMMS 99 TOTAL Mechanical Dredging TOTAL Dredging Rivers

EQUIP ID: NAT97C LABOR ID: NWW99D

Currency in DOLLARS

UPB ID: UP99EA

CREW ID: NAT99A

Mon 14 Aug 2000 Eff. Date 05/01/99 ERROR REPORT

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM325: Dredging 325K cy Confl. Inwater - DMMS Dredging
PLANNING ESTIMATE

TIME 12:07:40 ERROR PAGE 1

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No errors detected...

* END OF ERROR REPORT

LABOR ID: NWW99D EQUIP ID: NAT97C

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

Mon 14 Aug 2000 Eff. Date 05/01/99 TABLE OF CONTENTS

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM125: Dredging 125K cy Confl. Inwater - DMMS Dredging
PLANNING ESTIMATE

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In-Water 3.a

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM100: Dredging 300K cy Confl. Inwater - DMMS Dredging
PLANNING ESTIMATE

TIME 12:08:23

TITLE PAGE

Dredging 300K cy Confl. Inwater DMMS Dredging of Snake & Clearwater Rivers with Inwater Disposal

Designed By: Walla Walla District COE Estimated By: R. Hynek and J. Davin

Cost Engineering Branch Kim Callan, Chief Prepared By:

05/28/99 05/01/99 60 Days Preparation Date: Effective Date of Pricing: Est Construction Time:

7.90% Sales Tax: M C A C E S F O R W I N D O W S Software Copyright (c) 1985-1998 by Building Systems Design, Inc. Release 1.2c

Currency in DOLLARS

EQUIP ID: NAT97C

LABOR ID: NWW99D

CREW ID: NAT99A UPB ID: UP99EA

TITLE PAGE

Project Description:

Silcott Island near Snake River Mile 131 upstream to the State Highway 12 bridge upstream of the confluence of the Snake and Clearwater Rivers, located near Snake River Mile 139.5. The Clearwater River dredging areas are assumed to extend from the Snake River confluence upstream to the Port of Lewiston. From Clearwater River Mile 0.00 to Clearwater River Mile 1.66.
All material assumed to be disposed of from downstream of Centennial Island located near Snake River Mile 120.5 to the upstream face of Lower Granite Dam River Mile 108. The disposal site is assumed adequate to contain all The Snake River dredging areas are assumed to extend from the vicinity of materials dredged.

Basis of Design:

Planning level estimate produced utilizing the Cost Engineering Dredge Estimating Program (CEDEP)

anticipated. The Government Estimate is based on a 24 hour Work shall be conducted on a 24 hr/day, 3-8 hour shifts/day, 7 days/week, considering 4 holidays. Overtime is anticipated. operation.

Construction Windows:

Dredging operations will begin on 15 December, and shall not continue after 28 Feb. in any given year, due to the fish window requirements.

Sub Contracting Plan:

No Sub Contracting considered all work to be performed by Prime Contractor.

It is assumed all Disposal Transfer Sites & the In-water Disposal sites are accessible without further dredging requirements.

Construction Methodology:

Common dredging methods using 15cy clamshell dredges, with the use of scows for in-water disposal.

Conditions:

delays due to traffic, and coordination efforts have been accounted for within the effective working time. No adverse weather conditions other than normal winter work weather has been assumed. This work will take place during winter months. The anticipated types of soil to be incountered are sand/silts/gravels/cobbles. The use of Clamshells and Scows has been considered, due to the anticipated existence of silt type materials within the Confluence areas. Considerations for

Equipment/Labor Availability & Distance Traveled:

Assume labor will be available within the project location. Equipment wobblistation will be from the Mouth of the Columbia River to the Confluence of the Snake and Clearwater Rivers, approximately 461 River Miles to allow contractors from Portland & Seattle to compete.

Environmental Concerns:

Turbidity monitoring will be required during the dredging operation. Sieve

Currency in DOLLARS

UPB ID: UP99EA

CREW ID: NAT99A

LABOR ID: NWW99D

EQUIP ID: NAT97C

Mon 14 Aug 2000 Eff. Date 05/01/99 PROJECT NOTES

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM300: Dredging 300K cy Confl. Inwater - DMMS Dredging
PLANNING ESTIMATE

TIME 12:08:23

TITLE PAGE 3

analysis testing for course grained and fine grained materials will be required for determining location of disposal area to use. No overflow will be allowed.

Effective dates for: Labor: General Decision Number WA990001, Modification #1 dated 3/1/99. Equipment: Cost Engineering Dredge Estimating Programs (CEDEP) and Historical Dredging Equipment information.

UPB ID: UP99EA CREW ID: NAT99A

EQUIP ID: NAT97C LABOR ID: NWW99D

Currency in DOLLARS

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM300: Dredging 300K cy Confl. Inwater - DMMS Dredging
PLANNING ESTIMATE
** PROJECT INDIRECT SUMMARY - CSI ITEM **

SUMMARY PAGE

TIME 12:08:23

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	QUANTITY UOM	QUANTITY UOM TOTAL DIRECT	FOOH	НООН	PROF Misc Ta	sc Ta	BOND	TOTAL COST UNIT COST	NIT COST
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01 Snake River DMMS 99									
01.12 Navigation, Ports & Harbors									
01.12.06 Dredging Rivers									
01.12.06.01 Mechanical Dredging							•		
01.12.06.01.001- Mob. & Demob. Equipment				i .					
01.12.06.01.00101AA Mob. & Demob. Excavation Dredges	1.00 JB	169,157	5,252	13,953	18,836	0	2,684	209,882 209882.45	09882.45
TOTAL Hob. & Demob. Equipment	1.00 JB	169,157	5,252	13,953	18,836	0	2,684	209,882 209882.45	09882.45
01.12.06.01.002- Dredge, Haul & Off-load Material									
01.12.06.01.00202BB Dredging, Haul Mat. to Disposal 300000.00 CY	300000.00 CY	798,000	24,778	65,822	88,860	0	12,662	990,123	3.30
TOTAL Dredge, Haul & Off-load Material 300000.00 CY	300000.00 CY	798,000	24,778	65,822	88,860	0	12,662	990,123	3.30
TOTAL Mechanical Dredging	1.00 EA	967,157	30,030	277,67	107,696	0	15,347	1,200,005	1200005
TOTAL Dredging Rivers	1.00 EA	967,157	30,030	277,67	107,696	0	15,347	1,200,005	1200005
TOTAL Navigation, Ports & Harbors	1.00 EA	967, 157	30,030	277.61	107,696	0	15,347	1,200,005	1200005
TOTAL Snake River DMMS 99	1.00 EA	967,157	30,030	271,61	107,696	0	15,347	1,200,005	1200005
TOTAL Dredging 300K cy Confl. Inwater	1.00 EA	967, 157	30,030	277.67	107,696	0	15,347	1,200,005	1200005

CREW ID: NAT99A UPB ID: UP99EA

Mon 14 Aug 2000 Eff. Date 05/01/99 ERROR REPORT

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM300: Dredging 300K cy Confl. Inwater - DMMS Dredging
PLANNING ESTIMATE

TIME 12:08:23

ERROR PAGE 1

No errors detected...

* * * END OF ERROR REPORT * * *

EQUIP ID: NAT97C

LABOR ID: NWW99D

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

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Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM300: Dredging 300K cy Confl. Inwater - DMMS Dredging
PLANNING ESTIMATE

TIME 12:08:23

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No Detailed Estimate...

SUMMARY REPORTS

SUMMARY PAGE

No Backup Reports...

* * * END TABLE OF CONTENTS * * *

In-Water 4.a

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM41P: Dredging 41.5K cy Confl. Inwater - DMMS Dredging
PLANNING ESTIMATE

TIME 12:09:21

TITLE PAGE

Dredging 41.5K cy Confl. Inwater DMMS Dredging of Snake & Clearwater Rivers with Inwater Disposal

Designed By: Walla Walla District COE Estimated By: R. Hynek and J. Davin

Cost Engineering Branch Kim Callan, Chief Prepared By:

Preparation Date: Effective Date of Pricing: Est Construction Time:

05/28/99 03/01/99 60 Days

7.908 Sales Tax: M C A C E S F O R W I N D O W S Software Copyright (c) 1985-1998 by Building Systems Design, Inc. Release 1.2c

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

EQUIP ID: NAT97C LABOR ID: NWW99D

Mon 14 Aug 2000 Eff. Date 03/01/99 PROJECT NOTES

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM41P: Dredging 41.5K cy Confl. Inwater - DMMS Dredging
PLANNING ESTIMATE

TIME 12:09:21

TITLE PAGE

Silcott Island near Snake River Mile 131 upstream to the State Highway 12 bridge upstream of the confluence of the Snake and Clearwater Rivers, located to extend from the Snake River confluence of the Snake River defiging areas are assumed from the Snake River confluence upstream to the Port of Lewiston, from Clearwater River Mile 0.00 to Clearwater River Mile 1.66.

All material assumed to be disposed of from downstream of Centennial Island located near Snake River Mile 130.5 to the upstream face of Lower Granite Dam River Mile 108. The disposal site is assumed adequate to contain all The Snake River dredging areas are assumed to extend from the vicinity of materials dredged.

Basis of Design:

Planning level estimate produced utilizing the Cost Engineering Dredge Estimating Program (CEDEP)

Overtime is anticipated. The Government Estimate is based on a 24 hour operation. Work shall be conducted on a 24 hr/day, 3-8 hour shifts/day, 7 days/week, considering 4 holidays.

Construction Windows:

Dredging operations will begin on 15 December, and shall not continue after 28 Feb. in any given year, due to the fish window requirements.

Sub Contracting Plan:

No Sub Contracting considered all work to be performed by Prime Contractor.

Site Access:

It is assumed all Disposal Transfer Sites & the In-water Disposal sites are accessible without further dredging requirements.

Construction Methodology:

Common dredging methods using 15cy clamshell dredges, with the use of scows for in-water disposal.

This work will take place during winter months. The anticipated types of soil to be incountered are sand/silts/gravels/cobbles. The use of Clamshells and Scows has been considered, due to the anticipated existence of silt type materials within the Confluence areas. Considerations for delays due to traffic, and coordination efforts have been accounted for within the effective working time. No adverse weather conditions other than This work will take place during winter months. normal winter work weather has been assumed.

Assume labor will be available within the project location. Equipment Mobilization will be from the Mouth of the Columbia River to the Confluence of the Snake and Clearwater Rivers, approximately 463 River Miles to allow contractors from Portland & Seattle to compete. Equipment/Labor Availability & Distance Traveled:

Environmental Concerns:

Turbidity monitoring will be required during the dredging operation. Sieve

Currency in DOLLARS

EQUIP ID: NAT97C LABOR ID: NWW99D

CREW ID: NAT99A

UPB ID: UP99EA

Mon 14 Aug 2000 Eff. Date 03/01/99 PROJECT NOTES

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DHM41P: Dredging 41.5K cy Confl. Inwater - DHMS Dredging
PLANNING ESTIMATE

TIME 12:09:21

TITLE PAGE

analysis testing for course grained and fine grained materials will be required for determining location of disposal area to use. No overflow will be allowed.

Effective dates for:
Labor: General Decision Number WA990001, Modification #1 dated 3/1/99.
Equipment: Cost Engineering Dredge Estimating Programs (CEDEP) and
Historical Dredging Equipment information.

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

EQUIP ID: NAT97C LABOR ID: NWW99D

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM41P: Dredging 41.5K cy Confl. Inwater - DMMS Dredging
PLANNING ESTIMATE
** PROJECT INDIRECT SUMMARY - CSI ITEM **

TIME 12:09:21

SUMMARY PAGE

	QUANTITY UOM	TOTAL DIRECT	FOOH	ноон	PROF Misc Ta	Sc Ta	BOND	TOTAL COST UNIT COST
			1	3 8 8 6 7		1	1	: : : : : : : : : : : : : : : : : : : :
01 Snake River DMMS 99								
01.12 Navigation, Ports & Harbors								
01.12.06 Dredging Rivers								
01.12.06.01 Mechanical Dredging								
01.12.06.01.001- Mob. & Demob. Equipment								
01.12.06.01.00101AA Mob. & Demob. Excavation Dredges	1.00 JB	164,469	16,970	14,515	19,595	6	3,798	219,348 219348.09
TOTAL Mob. & Demob. Equipment	1.00 JB	164,469	16,970	14,515	19,595	0	3,798	219,348 219348.09
01.12.06.01.002- Dredge, Haul & Off-load Material								
01.12.06.01.00202BB Dredging, Haul Mat. to Disposal	41500.00 CY	126,575	13,060	11,171	15,081	0	2,923	168,810 4.07
TOTAL Dredge, Haul & Off-load Material	41500.00 CY	126,575	13,060	11,171	15,081	0	2,923	168,810 4.07
TOTAL Mechanical Dredging	1.00 EA	291,044	30,030	25,686	34,676	0	6,722	388,158 388157.92
TOTAL Dredging Rivers	1.00 EA	291,044	30,030	25,686	34,676	0	6,722	388,158 388157.92
TOTAL Navigation, Ports & Harbors	1.00 EA	291,044	30,030	25,686	34,676	0	6,722	388,158 388157.92
TOTAL Snake River DMMS 99	1.00 EA	291,044	30,030	25,686	34,676	0	6,722	388,158 388157.92
TOTAL Dredging 41.5K cy Confl. Inwater	1.00 EA	291,044	30,030	25,686	34,676	0	6,722	388,158 388157.92

Mon 14 Aug 2000 Eff. Date 03/01/99 ERROR REPORT

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM41P: Dredging 41.5K cy Confl. Inwater - DMM5 Dredging
PLANNING ESTIMATE

TIME 12:09:21

ERROR PAGE 1

No errors detected...

* * * END OF ERROR REPORT

LABOR ID: NWW99D EQUIP ID: NAT97C

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

Mon 14 Aug 2000 Eff. Date 03/01/99 TABLE OF CONTENTS

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DHM41P: Dredging 41.5K cy Confl. Inwater - DMMS Dredging
PLANAING ESTIMATE

PROJECT INDIRECT SUMMARY - CSI ITEM......

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No Backup Reports...

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. . . END TABLE OF CONTENTS

SUMMARY PAGE

TIME 12:09:21

CONTENTS PAGE

1

In-Water 5.a

TIME 12:10:09

TITLE PAGE

Dredging 12K cy McNary Inwater
DMMS Dredging
of Snake & Clearwater Rivers,
McNary Pool
with Inwater Disposal

Designed By: Walla Walla District COE Estimated By: R. Hynek and J. Davin

Prepared By:

Cost Engineering Branch Kim Callan, Chief 05/28/99 05/01/99 60 Days Preparation Date: Effective Date of Pricing: Est Construction Time:

Sales Tax:

UPB ID: UP99EA CREW ID: NAT99A

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Currency in DOLLARS

LABOR ID: NWW99D

EQUIP ID: NAT97C

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Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM32M: Dredging 32K cy McNary Inwater - DMMS Dredging
PLANNING ESTIMATE

TIME 12:10:09

TITLE PAGE

Project Description:

The Columbia and Snake Rivers, McNary Pool dredging areas are assumed to extend throughout the vicinity of the Ice Harbor Cut Navigation Channel from Snake River Mile 9 to Snake River Mile 9, located upstream of the confluence of the Columbia and Snake Rivers. All material assumed to be disposed of between Columbia River Mile 914.5 and 916.5.

Basis of Design:

Planning level estimate produced utilizing the Cost Engineering Dredge Estimating Program (CEDEP)

Overtime is anticipated. The Government Estimate is based on 24 hour operation. Work shall be conducted on a 24 hr/day, 3-8 hour shifts/day, 7 days/week, considering 4 holidays.

Construction Windows:

Dradging operations will begin on 15 December, and shall not continue after 28 Feb, in any given year, due to the fish window requirements.

Sub Contracting Plan:

No Sub Contracting considered all work to be performed by Prime Contractor.

It is assumed all Disposal Transfer Sites & the In-water Disposal sites are accessible without further dredging requirements.

Construction Methodology:

Common dredging methods using 10cy clamshell dredges, with the use of scows for in-water disposal.

This work will take place during winter months. The anticipated types of soil to be incountered are sand/silts/gravels/cobbles. The use of Clamshells and Scows has been considered, due to the anticipated existence of silt type materials within the Confluence areas. Considerations for dialays due to traffic, and coordination efforts have been accounted for within the effective working time. No adverse weather conditions other than normal winter work weather has been assumed.

Equipment/Labor Availability & Distance Traveled:
Assume labor will be available within the project location. Equipment
Mbilization will be from the Mouth of the Columbia River to Ice Harbor Lock
and Dam, approximately 334 River Hiles to allow contractors from Portland &
Seattle to compete.

Environmental Concerns:

Turbidity monitoring will be required during the dredging operation. Sieve analysis testing for course grained and fine grained materials will be required for determining location of disposal area to use. No overflow will

Effective dates for:

Currency in DOLLARS

EQUIP ID: NAT97C LABOR ID: NWW99D

UPB ID: UP99EA CREW ID: NAT99A

Mon 14 Aug 2000 Eff. Date 05/01/99 PROJECT NOTES

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM32M: Dredging 32K cy McNary Inwater - DMMS Dredging
PLANNING ESTIMATE

TIME 12:10:09

TITLE PAGE

Labor: General Decision Number WA990001, Modification [1 dated 3/1/99. Equipment: Cost Engineering Dredge Estimating Programs (CEDEP) and Historical Dredging Equipment information.

EQUIP ID: NAT97C LABOR ID: NWW99D

Currency in DOLLARS

UPB ID: UP99EA CREW ID: NAT99A

Mon 14 Aug 2000 Eff. Date 05/01/99

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DHM12H: Dredging 12K cy HoMary Inwater - DHM5 Dredging
PLANNING ESTIMATE
** PROJECT INDIRECT SUMMARY - CSI ITEM **

TIME 12:10:09

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SUMMARY PAGE

	QUANTITY UOM	TOTAL DIRECT	FOOH	ноон	PROF Misc Ta	c Ta	BOND	BOND TOTAL COST UNIT COST
			1 1 5 7 1	! ! !			1	***************************************
.01 Snake River DMMS 99								
01.01 Dredging Material Study								
01.01.12 Navigation, Ports & Harbors								
01.01.12.01 Mechanical Dredging								
01.01.12.01.001- Mob. & Demob. Equipment								
01.01.12.01.00101AA Mob. & Demob. Excavation Dredges	1.00 JB	129,182	18,241	11,794	15,922	0	3,229	178,368 178367.64
TOTAL Mob. & Demob. Equipment	1.00 JB	129,182	18,241	11,794	15,922	0	3,229	178,368 178367.64
01.01.12.01.002A Dredging Cost From CEDEP								
01.01.12.01.002A_02BB Dredging Cost From CEDEP	32000.00 CY	85,440	12,065	7,800	10,530	0	2,136	117,971 3.69
TOTAL Dredging Cost From CEDEP	32000.00 CY	85,440	12,065	7,800	10,530	0	2,136	
TOTAL Mechanical Dredging	1.00 EA	214,622	30, 306	19,594	26,452	0	5,365	296,339 296338.66
TOTAL Navigation, Ports & Harbors	1.00 EA	214,622	30,306	19,594	26,452	0	5,365	296,339 296338.66
TOTAL Dredging Material Study	1.00 EA	214,622	30,306	19,594	26,452	0	5,365	296,339 296338.66
TOTAL Snake River DMMS 99	1.00 EA	214.622	30,306	19,594	26,452	0	5,365	296,339 296338.66
TOTAL Dredging 32K cy McNary Inwater	1.00 EA	214,622	30,306	19,594	26.452	0	5,365	296,339 296338.66

EQUIP ID: NAT97C LABOR ID: NWW99D

Currency in DOLLARS

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DWM32M: Dredging 32K cy McNary Inwater - DWMS Dredging
PLANNING ESTIMATE

TIME 12:10:09

ERROR PAGE 1

END OF ERROR REPORT . . .

No errors detected...

Mon 14 Aug 2000 Eff. Date 05/01/99 ERROR REPORT

EQUIP ID: NAT97C LABOR ID: NWW99D

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

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Mon 14 Aug 2000 Eff. Date 05/01/99 TABLE OF CONTENTS

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM32M: Dredging 32K cy McNary Inwater - DMMS Dredging
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No Detailed Estimate...

PROJECT INDIRECT SUMMARY - CSI ITEM......

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. . . END TABLE OF CONTENTS . . .

In-Water 6.a

Mon 14 Aug 2000 Eff. Date 05/01/99

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMZIH: Dredging 2K cy Ice Harb Inwater - DMMS Dredging
PLANNING ESTIMATE

TIME 12:11:05

TITLE PAGE

Dredging 2K cy Ice Harb Inwater DMMS Dredging of Snake River, Ice Harbor Pool with Inwater Disposal

Designed By: Walla Walla District COE Estimated By: R. Hynek and J. Davin

Cost Engineering Branch Kim Callan, Chief Prepared By:

05/28/99 05/01/99 60 Days

Preparation Date: Effective Date of Pricing: Est Construction Time:

7.908 Sales Tax: M C A C E S F O R W I N D O W S Software Copyright (c) 1985-1998 by Building Systems Design, Inc. Release 1.2c

Currency in DOLLARS

EQUIP ID: NAT97C

LABOR ID: NWW99D

UPB ID: UP99EA CREW ID: NAT99A

Project Description:

The Snake River, Ice Harbor Pool dredging area is located downstream of Lower Monumental Dam. All material assumed to be disposed of between Snake River Monumental Dam. All material as Mile 10 to Snake River Mile 23.

Basis of Design:

Planning level estimate produced utilizing the Cost Engineering Dredge Estimating Program (CEDEP)

Overtime is anticipated. The Government Estimate is based on a 24 hour operation. Work shall be conducted on a 24 hr/day, 3-8 hour shifts/day, 7 days/week, considering 4 holidays. Overtime:

Construction Windows:

Dredging operations will begin on 15 December, and shall not continue after 28 Feb. in any given year, due to the fish window requirements.

No Sub Contracting considered all work to be performed by Prime Contractor. Sub Contracting Plan:

Site Access:

It is assumed all Disposal Transfer Sites & the In-water Disposal sites are accessible without further dredging requirements.

Construction Methodology: Common dredging methods using 10cy clamshell dredges, with the use of scows for in-water disposal.

Conditions:

This work will take place during winter months. The anticipated types of soil to be incountered are sand/silts/gravels/cobbles. The use of Chamshells and Scows has been considered, due to the anticipated existence of silt type materials within the Confluence areas. Considerations for delays due to traffic, and coordination efforts have been accounted for within the effective working time. No adverse weather conditions other than normal winter work weather has been assumed.

Equipment/Labor Availability & Distance Traveled:
Sasume labor will be available within the project location. Equipment
Mobilization will be from the Mouth of the Columbia River to Lower Monumental
Lock and Dam, approximately 365 River Miles to allow contractors from
Portland & Seattle to compete.

Environmental Concerns:
Turbidity monitoring will be required during the dredging operation. Sieve analysis testing for course grained and fine grained materials will be required for determining location of disposal area to use. No overflow will be allowed.

Effective dates for: Labor: General Decision Number WA990001, Modification #1 dated 1/1/99. Equipment: Cost Engineering Dredge Estimating Programs (CEDEP) and

Currency in DOLLARS

UPB ID: UP99EA CREW ID: NAT99A

EQUIP ID: NAT97C LABOR ID: NWW99D

Mon 14 Aug 2000 Eff. Date 05/01/99 PROJECT NOTES

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DWM2IH: Dredging 2K cy Ice Harb Inwater - DWMS Dredging
PLANNING ESTIMATE

TIME 12:11:05

TITLE PAGE

Historical Dredging Equipment information.

LABOR ID: NWW99D EQUIP ID: NAT97C

Currency in DOLLARS

Mon 14 Aug 2000 Eff. Date 05/01/99

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DHM21H: Dredging 2K cy Ice Harb Inwater - DMMS Dredging
PLANNING ESTIMATE
** PROJECT INDIRECT SUMMARY - CSI ITEM **

TIME 12:11:05

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SUMMARY PAGE

	QUANTITY UOM	QUANTITY UOM TOTAL DIRECT	FOOH	ноон	PROF Misc Ta	sc Ta	BOND	BOND TOTAL COST UNIT COST
		3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
01 Snake River DMMS 99								
01.12 Navigation, Ports & Harbors								
01.12.06 Dredging Rivers								
01.12.06.01 Mechanical Dredging								
01.12.06.01.001- Mob. & Demob. Equipment								
01.12.06.01.00101AA Mob. & Demob. Excavation Dredges	1.00 JB	115,563	27,451	11,441	15,445	0	3,454	173,354 173354.40
TOTAL Mob. & Demob. Equipment	1.00 JB	115,563	27,451	11,441	15,445	0	3,454	173,354 173354.40
01.12.06.01.002- Dredge, Haul & Off-load Material								awa fi . s
01.12.06.01.00202BB Dredging, Haul Mat. to Disposal	2000.00 CY	12,020	2,855	1,190	1,607	0	359	18,031 9.02
TOTAL Dredge, Haul & Off-load Material	2000.00 CY	12,020	2,855	1,190	1,607	0	359	18,031 9.02
TOTAL Mechanical Dredging	1.00 EA	127,583	30,306	12,631	17,052	0	3,814	191,385 191385.43
TOTAL Dredging Rivers	1.00 EA	127,583	30,306	12,631	17,052	0	3,814	191,385 191385.43
TOTAL Navigation, Ports & Harbors	1.00 EA	127,583	30,306	12,631	17,052	0	3,814	191,385 191385.43
TOTAL Snake River DMMS 99	1.00 EA	127,583	30,306	12,631	17,052	0	3,814	191,385 191385.43
TOTAL Dredging 2K cy Ice Harb Inwater	1.00 EA	127,583	30,306	12,631	17,052	0	3,814	191,385 191385.43

EQUIP ID: NAT97C LABOR ID: NWW99D

Currency in DOLLARS

Mon 14 Aug 2000 Eff. Date 05/01/99 ERROR REPORT

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DHW2IH: Dredging 2R cy Ice Harb Inwater - DHWS Dredging
PLANNING ESTIMATE

TIME 12:11:05

ERROR PAGE 1

No errors detected ...

* * * END OF ERROR REPORT . . .

EQUIP ID: NAT97C

LABOR ID: NWW99D

Currency in DOLLARS

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Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM2IH: Dredging 2K cy Ice Harb Inwater - DMMS Dredging
PLANNING ESTIMATE

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PROJECT INDIRECT SUMMARY - CSI ITEM........

SUMMARY REPORTS

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* * * END TABLE OF CONTENTS . . .

In-Water 7.a

Mon 14 Aug 2000 Eff. Date 05/01/99

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM2KM: Dredging 2K cy LoMo Inwater - DMMS Dredging
PLANNING ESTIMATE

TIME 12:11:55

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TITUE PAGE

Dredging 2K cy LoMo Inwater DMMS Dredging of Snake River, Lower Monumental Pool with Inwater Disposal

Designed By: Walla Walla District COE Estimated By: R. Hynek and J. Davin

Cost Engineering Branch Kim Callan, Chief Prepared By:

05/28/99 05/01/99 60 Days

Preparation Date: Effective Date of Pricing: Est Construction Time:

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Currency in DOLLARS

EQUIP ID: NAT97C

LABOR ID: NWW99D

CREW ID: NAT99A UPB ID: UP99EA

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TIME 12:11:55

TITLE PAGE

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM2KM: Dredging 2K cy LOMO Inwater - DMMS Dredging
PLANNING ESTIMATE

Project Description:

The Snake River, Lower Monumental Pool dredging area is located downstream of Little Goose Dam and near the confluence of the Palouse and Snake River confluence. All material assumed to be disposed of between Snake River Mile 47.

Basis of Design:

Planning level estimate produced utilizing the Cost Engineering Dredge Estimating Program (CEDEP) Overtime is anticipated. The Government Estimate is based on a 24 hour operation. Work shall be conducted on a 24 hr/day, 3-8 hour shifts/day, 7 days/week, considering 4 holidays.

Construction Windows:

Dredging operations will begin on 15 December, and shall not continue after 28 Feb. in any given year, due to the fish window requirements.

Sub Contracting Plan:

No Sub Contracting considered all work to be performed by Prime Contractor.

Site Access:

It is assumed all Disposal Transfer Sites & the In-water Disposal sites are accessible without further dredging requirements.

Common dredging methods using 10cy clamshell dredges, with the use of scows for in-water disposal. Construction Methodology:

Conditions:

This work will take place during winter months. The anticipated types of soil to be incountered are sand/silts/gravels/cobbles. The use of classhells and Scows has been considered, due to the anticipated existence of silt type materials within the Confluence areas. Considerations for delays due to traffic, and coordination efforts have been accounted for within the effective working time. No adverse weather conditions other than normal winter work weather has been assumed.

Equipment/Labor Availability & Distance Traveled:
Assume labor will be available within the project location. Equipment
Mbbilization will be from the Mouth of the Columbia River to Little Goose
Lock and Dam, approximately 194 River Miles to allow contractors from
Portland & Seattle to compete.

Environmental Concerns:

Turbidity monitoring will be required during the dredging operation. Sieve analysis testing for course grained and fine grained materials will be required for determining location of disposal area to use. No overflow will

Effective dates for: Labor: General Decision Number WA99001, Modification #1 dated 3/1/99.

Currency in DOLLARS

EQUIP ID: NAT97C LABOR ID: NWW99D

UPB ID: UP99EA CREW ID: NAT99A

Mon 14 Aug 2000 Eff. Date 05/01/99 PROJECT NOTES

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMZKH: Dredging 2R cy LoMo Inwater - DMMS Dredging
PLANNING ESTIMATE

TIME 12:11:55

TITLE PAGE 3

Sec Billion

Equipment: Cost Engineering Dredge Estimating Programs (CEDEP) and Historical Dredging Equipment information.

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

LABOR ID: NWW99D EQUIP ID: NAT97C

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Mon 14 Aug 2000 Eff. Date 05/01/99

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DWM2KM: Dredging 2K cy LoMo Inwater - DMMS Dredging
PLANNING ESTIMATE ** PROJECT INDIRECT SUMMARY - CSI ITEM **

SUMMARY PAGE

TIME 12:11:55

TOTAL COST UNIT COST BOND PROF Misc Ta HOOH FOOH QUANTITY UOM TOTAL DIRECT

210,848 210848.01 210,848 210848.01 229,645 229644.90 229,645 229644.90 229,645 229644.90 229,645 229644.90 18,797 18,797 4,021 4,379 4,379 4,379 4,021 358 358 4,379 18,802 1,676 18,802 1,676 20,479 20,479 20,479 20,479 13,928 1,242 1,242 15,169 13,928 15,169 15,169 15,169 27,825 2,481 30,306 30,306 27,825 2,481 30,306 30,306 30,306 146,272 13,040 159,312 159,312 146,272 159,312 13,040 159,312 1.00 JB 1.00 JB 2000.00 CY 2000.00 CY 1.00 EA 1.00 EA 1.00 EA 1.00 EA 01.12.06.01.001-_01AA Mob. & Demob. Excavation Dredges TOTAL Dredge, Haul & Off-load Material 01.12.06.01.002-_02BB Dredging, Haul Mat. to Disposal 01.12.06.01.002- Dredge, Haul & Off-load Material TOTAL Navigation, Ports & Harbors TOTAL Mob. & Demob. Equipment TOTAL Mechanical Dredging TOTAL Snake River DMMS 99 01.12.06.01.001- Mob. & Demob. Equipment TOTAL Dredging Rivers 01.12 Navigation, Ports & Harbors 01.12.06.01 Mechanical Dredging 01.12.06 Dredging Rivers 01 Snake River DMMS 99

9.40

229,645 229644.90

20,479

15,169

159,312

1.00 EA

TOTAL Dredging 2K cy LoMo Inwater

EQUIP ID: NAT97C LABOR ID: NWW99D

Currency in DOLLARS

Mon 14 Aug 2000 Eff. Date 05/01/99 ERROR REPORT

No errors detected...

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM2KH: Dredging 2K cy LoMo Inwater - DMMS Dredging
PLANNING ESTIMATE

TIME 12:11:55

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ERROR PAGE

* * * END OF ERROR REPORT

EQUIP ID: NAT97C LABOR ID: NWW99D

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

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Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM2KM: Dredging 2K cy LoMo Inwater - DMMS Dredging
PLANNING ESTIMATE

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PROJECT INDIRECT SUMMARY - CSI ITEM.......

SUMMARY REPORTS

TIME 12:11:55

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No Detailed Estimate...

No Backup Reports...

. . . END TABLE OF CONTENTS

In-Water 8.a

TIME 12:26:42

TITLE PAGE

Dredging 4K cy Goose Inwater DMMS Dredging of Smake River, Little Goose Pool with Inwater Disposal

Designed By: Walla Walla District COE Estimated By: R. Hynek and J. Davin

Prepared By: Cost Engineering Branch Kim Callan, Chief

05/28/99 05/01/99 60 Days Preparation Date: Effective Date of Pricing: Est Construction Time: 7.90% Sales Tax: M C A C E S F O R W I N D O W S Software Copyright (c) 1985-1998 by Building Systems Design, Inc. Release 1.2c

Currency in DOLLARS

EQUIP ID: NAT97C

LABOR ID: NWW99D

UPB ID: UP99EA CREW ID: NAT99A Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM4LG: Dredging 4K cy Goose Inwater - DMNS Dredging
PLANNING ESTIMATE

TIME 12:26:42

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TITLE PAGE

Description:

The Snake River, Little Goose Pool dredging area is located downstream of Lower Granite Dam and at Schultz Bar, located near Snake River Wile 100. All material assumed to be disposed of between Snake River Mile 71 to Snake River

Basis of Design: Planning level estimate produced utilizing the Cost Engineering Dredge Estimating Program (CEDEP)

Overtime is anticipated. The Government Estimate is based on a 24 hour operation. Work shall be conducted on a 24 hr/day, 3-8 hour shifts/day, 7 days/week, considering 4 holidays.

Construction Windows:

Dredging operations will begin on 15 December, and shall not continue after 28 Feb, in any given year, due to the fish window requirements.

Sub Contracting Plan: Nr Sub Contracting considered all work to be performed by Prime Contractor. Site Access:

It is assumed all Disposal Transfer Sites & the In-water Disposal sites are accessible without further dredging requirements.

Construction Methodology: Common dredging methods using 10cy clamshell dredges, with the use of scows for in-water disposal.

Conditions:

This work will take place during winter months. The anticipated types of soil to be incountered are sand/silts/gravels/cobbles. The use of classhells and Scows has been considered, due to the anticipated existence of silt type materials within the Confluence areas. Considerations for delays due to traffic, and coordination efforts have been accounted for within the effective working time. No adverse weather conditions other than normal winter work weather has been assumed.

Equipment/Labor Availability & Distance Traveled:
Assume labor will be available within the project location. Equipment
Mobilization will be from the Mouth of the Columbia River to Lower Granite
Lock and Dam, approximately 431 River Miles to allow contractors from
Portland & Seattle to compete.

Environmental Concerns:

Turbidity monitoring will be required during the dredging operation. Sieve analysis testing for course grained and fine grained materials will be required for determining location of disposal area to use. No overflow will be allowed.

Effective dates for: Labor: General Decision Number WA990001, Modification #1 dated 3/1/99.

EQUIP ID: NAT97C LABOR ID: NWW99D

Currency in DOLLARS

UPB ID: UP99EA

CREW ID: NAT99A

Mon 14 Aug 2000 Eff. Date 05/01/99 PROJECT NOTES

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM4LG: Dredging 4K cy Goose Inwater - DMMS Dredging
PLANNING ESTIMATE

TIME 12:26:42

TITLE PAGE

Equipment: Cost. Engineering Dredge Estimating Programs (CEDEP) and Historical Dredging Equipment information.

EQUIP ID: NAT97C LABOR ID: NWW99D

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

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Mon 14 Aug 2000 Eff. Date 05/01/99

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DHM4LG: Dredging 4K cy Goose Inwater - DHMS Dredging
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** PROJECT INDIRECT SUMMARY - CSI ITEM **

TIME 12:26:42

SUMMARY PAGE

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EQUIP ID: NAT97C LABOR ID: NWW99D

Currency in DOLLARS

UPB ID: UP99EA CREW ID: NAT99A

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Mon 14 Aug 2000 Eff. Date 05/01/99 ERROR REPORT

No errors detected...

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMM4LG: Dredging 4K cy Goose Inwater - DMMS Dredging
PLANNING ESTINATE

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ERROR PAGE

CREW ID: NAT99A UPB ID: UP99EA

Currency in DOLLARS

EQUIP ID: NAT97C

LABOR ID: NWW99D

B-82

TIME 12:26:42

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DHM4LG: Dredging 4K cy Goose Inwater - DHMS Dredging
PLANNING ESTIMATE

Mon 14 Aug 2000 Eff. Date 05/01/99 TABLE OF CONTENTS

TIME 12:26:42

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SUMMARY REPORTS

SUMMARY PAGE

PROJECT INDIRECT SUMMARY - CSI ITEM

No Detailed Estimate...

No Backup Reports...

* * * END TABLE OF CONTENTS * * *

Upland Summary

Dredged Material Management Study Dredging of Snake and Clearwater Rivers Upland Disposal

	Description	Years	Estimated Quantity	U/M	Total \$ Costs Each Year of Dredging
Item 1 -	Confluence Dredging Snake & Clearwater Rivers				
Item 1.a	Initial Construction of Chief Timothy Transfer Site and Page Creek Upland disposal Site, template dredge operation, and upland disposal at Chief Timothy	1	2,000,000	су	\$12,313,000
Item 1.b	Initial Construction of Chief Timothy Transfer Site RCC Cap, template dredge operation, and upland disposal at Page Creek	2	2,000,000	су	\$21,095,000
Item 1.c	Template dredge operation and upland disposal at Page Creek	3-20	2,000,000	су	\$20,232,000
Item 1.d	Template maintenance dredge operation and upland disposal at Page Creek	21-end	725,000	су	\$8,309,000
Item 2 -	Confluence Dredging Snake & Clearwater Rivers				
Item 2.a	Initial Construction of Chief Timothy Transfer Site and Page Creek Upland Disposal Site, template dredge operation, and upland disposal at Chief Timothy	1	1,000,000	су	\$8,798,000
Item 2.b	Template dredge operation and upland disposal at Chief Timothy	2	1,000,000	су	\$3,896,000
Item 2.c	Initial Construction of Chief Timothy Transfer Site RCC Cap, template dredge operation, and upland disposal at Page Creek	3	1,000,000	су	\$11,170,000
Item 2.d	Template dredge operation and upland disposal at Page Creek	4-10	1,000,000	су	\$10,307,000
Item 2.e	Template maintenance dredge operation and upland disposal at Page Creek	11-end	325,000	су	\$5,737,000
Item 3 -	Confluence Dredging Snake & Clearwater Rivers				
Item 3.a	Initial Construction Jose Upland Disposal Site, template dredge operation, and upland disposal at Joso	1	300,000	су	\$9,738,000
Item 3.b	Template dredge operation and upland disposal at Joso	2-20	300,000	су	\$4,824,000
Item 3.c	Initial Construction of Chief Timothy Transfer Site, template dredge operation, and upland disposal at Chief Timothy	21	300,000	су	\$5,831,000
Item 3.d	Template dredge operation and upland disposal at Chief Timothy	22-26	300,000	су	\$1,682,000
Item 3.e	Initial Construction of Page Creek Upland Disposal Site, template dredge operation, and disposal at Chief Timothy	27	300,000	су	\$2,435,000

Dredged Material Management Study Dredging of Snake and Clearwater Rivers Upland Disposal

	Opiana Disposai				
Item 3.f	Initial Construction of Chief Timothy Transfer Site RCC Cap, template dredge operation, and upland disposal at Page Creek	28	300,000	су	\$4,480,000
Item 3.g	Template dredge operation and upland disposal at Page Creek	29-end	300,000	су	\$3,617,000
Item 4 - 6	Confluence Dredging Snake & Clearwater Rivers				
Item 4.a	Initial Construction Jose Upland Disposal Site, template maintenance dredge operation, and upland disposal at Joso	5	41,500	су	\$3,199,000
Item 4.b	Template maintenance dredge operation and upland disposal at Joso	10	41,500	су	\$1,000,000
Item 4.c	Template maintenance dredge operation and upland disposal at Joso	20	41,500	су	\$1,000,000
Item 4.d	Template maintenance dredge operation and upland disposal at Joso	10-yr intervals - end	41,500	су	\$1,000,000
Item 5 - I	Oredging McNary Pool				
Item 5.a	Initial Construction Jose Upland Disposal Site, template maintenance dredge operation, and upland disposal at Joso	1	32,000	су	\$2,882,000
Item 5.b	Template maintenance dredge operation and upland disposal at Joso	2-end at 2-yr intervals	32,000	су	\$683,000
Item 6 - I	Oredging Ice Harbor Pool				
Item 6.a	Template maintenance dredge operation and upland disposal at Joso	1-end at 2-yr intervals	2,000	су	\$204,000
item 7 - i	Oredging Lower Monumental Pool				
Item 7.a	Template maintenance dredge operation and upland disposal at Joso	1-end at 2-yr intervals	2,000	су	\$208,000
ltem 8 - I	Oredging Little Goose Pool				
Item 8.a	Template maintenance dredge operation and upland disposal at Joso	1-end at 2-yr intervals	4,000	су	\$244,000

Dredged Material Management Study Dredging of Snake and Clearwater Rivers Upland Disposal

Item 9 - Dredging contaminated material

Item 9.a	Initial Construction Joso Contingency Upland Disposal Site, template maintenance dredge operation, and upland disposal at Joso	Initial	7,000 cy	\$11,613,000
Item 9.b	Template maintenance dredge operation and upland disposal at Joso	Subsequent Operations	7,000 cy	\$230,000

Note:

Total Costs include Overhead and Profit.

Escalation and contingencies are not included.

Item #1 2,000,000 cy option requires a significant amount of Dredging Plant to complete project within construction window. From Historical information this is a high risk option. Dependent on Contractor ability to provide equipment which could effect cost.

Points of Contact:

Lead Estimator - Karl Pankaskie (509)527-7517

Estimator - Julie Davin (509)527-7514

Upland 1 Proration

2,000,000 cy @ Chief Timothy Mechanical Dredging, River to Trans Costs \$7,410,624 Disposal (Page Creek)/Transfer (Chi	sfer Site (Chief 7 \$7,410,624 ef Timothy) Site \$863,181 age Creek) from \$12,820,859 sfer Site (Chief 7	imothy) \$7,410,624 Development \$0 Transfer Site \$12,820,859	\$7,410,624 t \$0 • (Chief Timoth	\$7,410,624 \$0 hy) \$12,820,859	\$7,410,624 \$0 \$12,820,859	\$7,410,624 \$0 \$12,820,859	\$7,410,624 \$0 \$12,820,859
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FY18	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10	FY09

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FY71	\$0	\$3,635,907 \$3	\$4,672,205 \$4		\$6,306,112 \$8 \$00,000		FY71
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FY65	0	\$3,635,907	\$4,672,205	\$0 \$0 \$8,308,112	\$0	\$8,308,112	FY65
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FY63	9	\$3,635,907	\$4,672,205	\$0 \$0 \$8,308,112	\$0	\$8,308,112	FY63
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Subtotal 74 Years	0\$	\$148,212,480	\$5,765,173	\$243,596,321	\$196,338,978	\$252,299,070	\$0 \$5,765,173 \$840,446,849		\$846,212,022	74 Years
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Upland 1.a.b.c

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMUZM: Dredging 2-M CuY Confl. Upland D - DMMS Dredging
PLANNING ESTIMATE - 2,000,000 CY OF DREDGE MAT

TITLE PAGE

Dredging 2-M CuY Confl. Upland D
DWMS Dredging
of Snake & Clearwater Rivers
with Upland Disposal

Designed By: Walla Walla District COE Estimated By: R. Hynek and J. Davin

Prepared By: Cost Engineering Branch Kim Callan, Chief

05/28/99 05/01/99 60 Days Preparation Date: Effective Date of Pricing: Est Construction Time:

7.90% Sales Tax: M C A C E S F O R W I N D O W S Software Copyright (c) 1985-1998 by Building Systems Design, Inc.

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

EQUIP ID: NAT97C LABOR ID: NAT99A

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DAMNUZM: Dredging 2-M CuY Confl. Upland D - DAMNS Dredging
PLANNING ESTIMATE - 2,000,000 CY OF DREDGE MAT

TIME 11:35:35

TITLE PAGE

Project Description:

The Shake River deedging areas are assumed to extend from the vicinity of Silcott Island near Shake River Mile 131 upstream to the State Highway 12 bridge upstream of the confluence of the Shake and Clearwater Rivers, located near Shake River Mile 1395. The Clearwater River dredging areas are assumed to extend from the Shake River confluence upstream to the Port of Lewiston, from Clearwater River Mile 0.00 to Clearwater River Mile 1.66.

All material assumed to be disposed of utilizing a transfer station near Shake River Mile 131, located near the Mouth of Alpowa Creek where the material will be temporarily stored. The material will be temporarily stored. The material will be relanded from the Transfer Station to the final Disposal Area at the Page Creek - East Side Site. The disposal site is assumed adequate to contain all materials dredged.

Basis of Design:

Planning level estimate produced utilizing the MICRO Computer Aided Cost Estimating System (MCACES) and Cost Engineering Dredge Estimating Program (CEDEP)

Overtime:

Overtime is anticipated. The Govertment Estimate is based on a 24 hour operation. Work shall be conducted on a 24 hr/day, 3-8 hour shifts/day, 7 days/week, considering 4 holidays.

Construction Windows:

Dredging operations will begin on 15 December, and shall not continue after 28 Feb, in any given year, due to the fish window requirements. Construction of the Transfer Station and the Disposal Area will occur during year one.

Sub Contracting Plan:

No Sub Contracting considered all work to be performed by Prime Contractor. Site Access:

In-water Disposal sites are It is assumed all Disposal Transfer Sites & the Ir accessible without further dredging requirements. Construction Methodology:

Common dredging methods using 15cy clamshell dredges, with the use of scows for in-water disposal. The Transfer Station and the Disposal Area will be constructed during the first year. The first years dredging material will be used for development of the Transfer Station. After year one the dredging material will be loffloaded from the barges on to the Transfer Site where the material will be allowed to dewater. The material may be moved from the Transfer Station to the final Disposal area throughout the remainder of the

Conditions:

within the effective working time. No adverse weather conditions other than This work will take place during winter months. The anticipated types of soil to be incountered are and/silts/gravels/cobbles. The use of Clambells and Scows has been considered, due to the anticipated existence of silt type materials within the Confluence areas. Considerations for delays due to traffic, and coordination efforts have been accounted for

EQUIP ID: NAT97C

Currency in DOLLARS

UPB ID: UP99EA

CREW ID: NAT99A

LABOR ID: NAT99A

Mon 14 Aug 2000 Eff. Date 05/01/99 PROJECT NOTES

Tri-Service Automated Cost Engineering System (TRAUES)
PROJECT DMMUZM: Dredging 2-M CuY Confl. Upland D - DMMS Dredging
PLANNING ESTIMATE - 2,000,000 CY OF DREDGE MAT

TITLE PAGE

normal winter work weather has been assumed.

Equipment/Labor Availability & Distance Traveled:
Assume labor will be available within the project location. Dredging Plant Equipment Mobilization will be from the Mouth of the Columbia River to the Confluence of the Snake and Clearwater Rivers, approximately 463 River Miles to allow contractors from Portland & Seattle to compete. All equipment is considered owned - no rental equipment considered when equipment other than dredging plant tates were computed based on the EP 1110-1-8. All equipment other than Dredging Plant mob and demob costs computed as 5% of the direct

Turbidity monitoring will be required during the dredging operation. Sieve analysis testing for course grained and fine grained meterials will be required for determining location of disposal area to use. No overflow will Environmental Concerns: be allowed.

Total costs include Overhead and Profit. Escalation and contingencies are not included.

Contingencies:

Effective dates for:
Labor: General Decision Number WA990001, Modification #1 dated 3/1/99.
Equipment: Cost Engineering Dredge Estimating Programs (CEDEP),
Historical Dredging Equipment information, and EP 1110-1-8.

EQUIP ID: NAT97C LABOR ID: NAT99A

UPB ID: UP99EA

CREW ID: NAT99A

Currency in DOLLARS

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DAWLOZM: Dredging 24 Mr CuY Confl. Upland D - DHMS Dredging
PLANNING SSTIMATE - 2,000,000 CV OF DREDGE MAT
** PROJECT INDIRECT SUMMARY - CSI ITEM **

TIME 11:35:35

SUMMARY PAGE

FOOH QUANTITY UOM TOTAL DIRECT

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TITE & LANGEDRES THE ALMEDORS THE ALMEDORS										
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HOD. & DEMOB. AND PREMORK HOD. & DEMOB. Excavation Dredges H. 00 JB 276,938 27,694 15,232 27,988 0 3,015 GGE, HAUL & OFF-LOAD MATERIAL Dedding barge, with Clamshell 2000000 CY 1,770,339 1370,000 20,500 370,911 DEGDING AT 15,732 27,988 0 1,4995 GGILadding Barge, with Clamshell 2000000 CY 1,770,339 1370,734 15,754 139,197 0 14,995 Fush Mat to Dry Area, by Dozer OCTIONATION CY 5,772,249 557,225 106,474 561,145 0 60,664 7 HATT TO DISPOSAL SITE Load, Mall, Spread in Disposal S 2000000 CY 5,849,187 584,919 121,705 591,134 0 63,679 77, HAUL HAT. TO DISPOSAL SITE Load, Mall, Spread in Disposal S 2000000 CY 9,684,899 1,452,715 556,882 906,725 0 97,753 12, HAUL HAT. TO DISPOSAL SITE Load, Mall, Spread in Disposal S 2000000 CY 9,684,899 1,452,715 556,882 906,725 0 97,753 12, HAUL HAT. TO DISPOSAL SITE Load Site, Rydro Seeding Upland Site, Rydro Seeding 12:00 AC 22,800 1,452,715 556,882 906,725 0 97,753 12, Transfer Site, Rydro Seeding Transf										
Nob. & Demodo Excavation Dredges 1.00 JB 276.938 27.694 15.212 27.988 0 3.015 350.866 3508	01.12.06.01.001- MOB. & DEMOB. AND PREWORK									
State Debotor Colored Colore	01.12.06.01.00101AA Mob. & Demob. Excavation Dredges	1.00 JB	276,938	27,694	15,232	27,988	0	3,015	350,866	508
OFF. HAUL & OFF-LOAD HATERIAL Dredging & Haul Hat to Disposal 2000000 CY 1,377,319 137,714 75,754 139,187 0 40,281 4,687,712 01100000 CY 1,377,319 137,714 75,754 139,187 0 14,995 1,745,019 17,712 01100000 CY 1,377,319 137,714 75,754 139,187 0 14,995 1,745,019 17,712 01100000 CY 1,377,319 137,714 75,754 139,187 0 14,995 1,745,019 17,712 17,714 17,715 17,714	TOTAL MOB. & DEMOB. AND PREWORK	1.00 JB	276,938	27,694	15,232	27,988	0	3,015	350,866	508
Dredding & Haul Hat to Disposal 2000000 CY 437,319 137,714 75,754 139.137 0 40,281 4,687,712 0 15,000 CY 437,319 137,714 75,754 139.137 0 40,281 4,687,712 175,000 CY 437,319 137,714 75,754 139.137 0 40,281 1745,019 627,026 1745,019 1745,	DREDGE, HAUL &									
Pusch Mat to Dry Area, by Doser 200000 CY 494,910 49,431 27,220 50,017 0 5,888 627,026 627,027,026 627,027,026 627,027,027,027,027,027,027,027,027,027,0	Dredging &	2000000 CY	3,700,000	370,000	203,500	373,931	0	40,281	4,687,712	
LOAG. HOUL & OFF-LOAD MATERIAL LOAG. HAUL & OFF-LOAD MATERIAL LOAG. HAUL, Spread in Disposal S LOAG. HAUL, HA	Push Mat to		494,910	49,491	27,220	50,017	0	5,388	1,745,019 627,026	
HATERIAL TO DISPOSAL HATERIAL TO DISPOSAL HATERIAL TO DISPOSAL SITE Load, Haul, Spread in Disposal S 2000000 GCY 9,684,899 1,452,715 556,882 906,125 0 97,753 12,698,594 HATERIAL TO DISPOSAL SITE Load, Haul, Spread in Disposal S 2000000 GCY 9,684,899 1,452,715 556,882 906,125 0 97,753 12,698,594 HAUL MAT. TO DISPOSAL SITE Load, Haul, Spread in Disposal S 2000000 GCY 9,684,899 1,452,715 556,882 906,125 0 97,753 12,698,594 HAUL MAT. TO DISPOSAL SITE Load, Haul, Spread in Disposal S 2000000 GCY 9,684,899 1,452,715 556,882 906,125 0 97,753 12,698,594 HAUL MAT. TO DISPOSAL SITE Load, Haul, Spread in Disposal S 2000000 GCY 9,684,899 1,452,715 556,882 906,125 0 97,753 12,698,594 HAUL MAT. TO DISPOSAL SITE Load, Haul, Spread in Disposal S 2000000 GCY 9,684,899 1,452,715 556,882 906,125 0 97,753 12,698,594 HAUL MAT. TO DISPOSAL SITE Load, Haul, Spread in Disposal S 2000000 GCY 9,684,899 1,452,715 556,882 906,125 0 97,753 12,698,594 HAUL MAT. TO DISPOSAL SITE Transfer Site, Hydro Seeding Transfer Site, Hydro Seeding Transfer Site, Hydro Seeding TRANSFER MATERIAL TO DISPOSAL TO SOULL, L.H.S TARANSFER FIZV, CHIEF TIM 15. REVORATION OF SITES TRANSFER FIZV, CHIEF TIM 15. REVORATION OF SITES TARANSFER FIZV, CHIEF TIM 15. REVORATION OF SITES TARANSFER FIZV, CHIEF TIM 15. REVORATION OF SITES TARANSFER FIZV, CHIEF TIM 15. REVORATION OF SITES TO SOULD GCY 9,778,148 1,466,722 562,243 915,051 0 98,694 12,820,859	TOTAL DREDGE, HAUL & OFF-LOAD MATERIAL		5,572,249	557,225	306,474	563, 145	0	60,664	7,059,757	
HATERIAL TO DISPOSAL HAT. TO DISPOSAL SITE Load, Haul, Spread in Disposal S 2000000 BCY 9,684,899 1,452,715 556,882 906,325 0 97,753 12,698,594 Load, Haul, Spread in Disposal S 2000000 BCY 9,684,899 1,452,715 556,882 906,325 0 97,753 12,698,594 CORATION OF SITES Upland Site, Hydro Seeding 12.00 AC 22,800 3,420 1,311 2,134 0 2,229 0 240 31,238 Transfer Site, Hydro Seeding 12.00 AC 23,824 3,574 1,370 2,229 0 240 31,238 TRANSFER FAL, TOP Soil, L.H.S 9100.00 BCY 23,824 3,574 1,370 2,229 0 240 31,238 TRANSFER FAL, CHIEF TIH TRANSFER FAV, CHIEF TIH 15. RESTORATION TRANSFER FAV, CHIEF TIH 15. RESTORATION TRANSFER FAV, CHIEF TIH TSANSFER FAV, CHIEF TIH	TOTAL MECH DREDGING, RIVER TO TRANSFER	2000000 CY	5,849,187	584,919	321,705	591,134	0	63,679	7,410,624	
Load, Haul, Spread in Disposal S 2000000 BCY 9,684,899 1,452,735 556,882 906,325 0 97,753 12,698,594 Load, Haul, Spread in Disposal S 2000000 CY 9,684,899 1,452,735 556,882 906,325 0 97,753 12,698,594 CHAUL MAT. TO DISPOSAL SITE CORATION OF SITES Upland Site, Hydro Seeding 12.00 AC 22,800 3,420 1,311 2,134 0 230 240 31,238 Upland Site, Hydro Seeding 12.00 AC 23,800 3,420 1,311 2,134 0 230 310 31,238 Transfer Site, Top Soil, L.H.S 9100.00 BCY 23,824 3,574 1,370 2,229 0 240 31,238 TRANSFER FIRM TRANSFER PATERIAL TO DISPOSAL 200000 CY 9,778,148 1,466,722 562,243 915,051 0 98,694 12,820,859										
Load, Haul, Spread in Disposal S 2000000 GY 9,684,899 1,452,735 556,882 906,325 0 97,753 12,698,594 CHAUL MAT. TO DISPOSAL SITE CORATION OF SITES Upland Site, Hydro Seeding Upland Site, Top Soil, L,H,S 9100.00 BCY 23,824 3,574 1,370 2,229 0 240 31,238 Transfer Site, Hydro Seeding Transfer Site, Hydro Seeding Transfer Site, Top Soil, L,H,S 9100.00 BCY 23,824 3,574 1,370 2,229 0 240 31,238 TRANSFER MATERIAL TO DISPOSAL TRANSFER MATERIAL TO DISPOSAL TRANSFER FZV, CHIEF TIM SS.RIVER DIKE & SP BARGE SLIP	01.12.06.02.001- HAUL MAT. TO DISPOSAL SITE									
CORATION OF SITES FORATION OF SITES FORATION OF SITES FORATION OF SITES Upland Site, Hydro Seeding Upland Site, Top Soil, L.H.S 12.00 AC 22,800 3,420 1,311 2,134 0 230 240 Transfer Site, Hydro Seeding Transfer Site, Top Soil, L.H.S 9100.00 BCY 22,800 3,420 1,311 2,134 0 240 240 240 270 TRANSFER MATERIAL TO DISPOSAL 2000000 CY 9,684.899 1,452,715 556,882 906,325 0 97,753 12.00 240 240 240 240 240 240 240	, Spread in Disposal	2000000 BCY	9,684,899 1	1,452,735	556,882	906,325		97,753	12,698,594	
Transfer Site, Hydro Seeding 12.00 AC 22.800 3.420 1.311 2.134 0 230 29.895 24 11.218	-	2000000 CY		, 452, 735	556, 882	906,325	0	97,753	12,698,594	
Upland Site, Hydro Seeding 12.00 AC 22,800 3,420 1,311 2,134 0 230 229,895 24 1,218 0 210 220,895 24 1,218 0 210 220,895 24 1,218 0 210 20,00 BCY 21,824 1,370 2,229 0 240 1,218 2,138 24 1,218 2,134 0 230 29,895 24 1,218 2,185 24 1,370 2,229 0 240 1,218 2,185 24 1,218 2,185 24 1,370 2,229 0 240 1,218 2,185 24 1,218 2,185 24 1,370 2,229 0 240 1,218 28 24 1,218 24	RESTORATION OF									
Upland Site, Top Soil, L.H.S 9100:00 BeY 21,824 1,370 2,229 0 240 11,218 1,218		12.00 AC	22,800	3,420	1,311	2,134	0	230	29.895	240
Transfer Site, Top Soil, L,H,S 9100.00 BCY 23.824 3.574 1,370 2,229 0 240 31,238 TRANSFER MATERIAL TO DISPOSAL 200000 CV 9,778,148 1,466,722 562.243 915,051 0 98,694 12,820,859 15,RIVER DIKE & SP BARGE SLIP		9100.00 BCY	23,824	3,574	1,370	2,229	0	240	31,238	
TOTAL TRANSFER MATERIAL TO DISPOSAL 2000000 CY 9,778,148 1,466,722 562,243 915,051 0 941 122,265 501 TOTAL TRANSFER FZV, CHIEF TIM TRANSFER FZV, CHIEF		9100.00 BCY	23,824	3,574	1,310	2,134	00	230	31,238	24
TOTAL TRANSFER MATERIAL TO DISPOSAL 2000000 CY 9,778,148 1,466,722 562,243 915,051 0 98,694 OSAL/TRANSFER FZV, CHIEF TIM TRANS, RIVER DIKE & SP BARGE SLIP	TOTAL RESTORATION OF SITES	24.00 AC	93,248	13,987	5,362	8,726	0	941	122,265	503
OSAL/TRANSFER FEV, TRANS, RIVER DIKE	TOTAL TRANSFER MATERIAL TO DISPOSAL	2000000 CY	9,778,148 1	,466,722	562,243	915,051	0	98,694	12,820,859	
TRANS, RIVER DIKE	01.12.06.03 DISPOSAL/TRANSFER FZV, CHIEF TIM				-					
	TRANS, RIVER DIKE									

Currency in DOLLARS

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DAMUZH: Dredging 2-M CuY Confl. Upland D - DAMS Dredging
PLANNING ESTIMATE - 2,000,000 CY OF DREDGE NAT
** PROJECT INDIRECT SUMMARY - CSI ITEM **

SUMMARY PAGE

TIME 11:35:35

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T-RS Berm,	40000.00	193,105	28,966	11,104	20,403	0	2.411	255.988	
T-RS Barge	52000.00	1,006,485	150,973	57,873	106,341	0	12,566	1,334,239	
01.12.06.03.00102UB T-KS BARGE Tie-Off, (Wood pole) 01.12.06.03.00103AB T-Barge Tie-off, Piling Anchr-Blk	576.00 LF 780.00 CY	22,883	3,432	1,316 9,611	2,418	00	2,087	30,334	
TOTAL TRANS, RIVER DIKE & SP BARGE SLIP	2600.00 LF	1,389,624	208,444	79,903	146,822	0	17,350	1.842.144	
01.12.06.03.002- TRANSFER DIKE, (LAND SIDE)									
T-Berm, B	56260.00 BCY	272.548	40.882	15.672	28.796	c	1 401	161 101	
T-Berm, Earth Fill,		36,517	5,478	2,100	3,858	0	456	48.408	
T-Berm, F	5300.00	39,201	5,880	2,254	4,142	0	489	51,967	
T-Berm, R-	520.00	6,780	1,017	390	716	0	88.5	8,987	_
01.12.06.03.002C2TA T-Berm, Seeding Earth Fill	2.50 ACR	4,750	713	273	8,066 502	00	953	101,198 6,297	-
TOTAL TRANSFER DIKE, (LAND SIDE)	5150.00 LF	436,135	65,420	25,078	46,080	0	5,445	578,159	
01.12.06.03.003- TRANS, SETTLEMENTATION PONDS, 4 EA									
		13,265	1,990	763	1,402	0	166	17,584	
T-Berm, Ea	26000.00	126,826	19,024	7,293	13,400	0	1,583	168,126	
01 12 06 01 001. DIMA T-Berm, S&D Pond, Overflow ConcStr	8.00	50,724	7,609	2,917	5,359	0	633	67,242	-
01.12.06.03.003030A T-Berm, S&D Pond, Pumps Pads		19,883	3,148	1,207	2,218	00	262	27,824	
TOTAL TRANS, SETTLEMENTATION PONDS, 4 EA	1.00 SF	231,687	34,753	13, 322	24,479	0	2,893	307,134	
01.12.06.03.004- TRANS(BRIDGE)CRANE RAIL, UNL BARG									
01.12.06.03.00402BA T-BCR Set &Drive H-12x84 Columns 01 12 06 03 004- 0188 T-BCP Plansed Concrete Boson	8400.00 LF	256,245	38,437	14,734	27,074	0	3, 199	339,689	-
T-BCR Cran	4200.00	140,877	21,131	8,100	14,884	00	1,759	186.752	
01.12.06.03.00413AA Purchased Crane Cost in Eq Rates	2.00 EA	0	• .	0	0	0	0	0	
TOTAL TRANS (BRIDGE) CRANE RAIL, UNL BARG	2100.00 LF	1,072,414	160,862	61,664	113,307	0	13,389	1,421,637	
01.12.06.03.005- BRIDGE FOR HIGHWAY CROSSING									
Ramps,		88,972	13,346	5,116	9,401	0	1,111	117,946	
01.12.06.03.00502AC Kamps, Earthern Fill, Prep	560.00	7, 101	188	72	132	00	16	1,661	
& Abuts, Concr 30'W 46	1	126,000	18,900	7,245	13,313	• •	1,573	167,031	
TOTAL BRIDGE FOR HIGHWAY CROSSING	1050.00 LF	223,526	33,529	12,853	23, 617	0	2,791	296.316	

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DHNUZN: Dredging 2-M CuV Confl. Upland D - DHNS Dredging
PLANNING STIRATE - 2,000,000 CY OF DREDGE MAT
** PROJECT INDIRECT SUMMARY - CSI ITEM **

TIME 11:35:35

SUMMARY PAGE

01.12.06.01.006-02AA Access Road Clark & Grub. 01.12.06.01.006-02AA Access Road Clark & Grub. 10.00 ACR			QUANTITY UOM	TOTAL DIRECT	FOOH	ноон	PROF Misc	SC Ta	BOND	TOTAL COST UNIT COST	NIT COST
Access Road, Clear & Grub Access Road, Cluster III, Frep 3100.00 CV 64.417 Access Road, Colvert III, 6'Thk 5100.00 CV 64.417 Access Road, Colvert III, 6'Thk 5100.00 CV 64.417 Access Road, Colvert III, 6'Thk 5100.00 CV 64.417 Access Road, Seeding Access Road, Seeding 7700.00 CF 14.214 Access Road A				1	† † † † † *	3 4 9 9 9 9 9 8	; ; ; ; ; ; ;	1 1 6 1 4 4	1		1 1 1 1 1
Access Read, Carte Fill. L.H.S 7500.00 ECY 198,747 2,932 1,142 20,999 0 2,481 Access Read, Carte Fill. L.H.S 7500.00 ECY 11,132 1,695 1,137 0 6,505 1,137 0 6,505 1,137 0 6,505 1,137 0 6,505 1,137 0 6,505 1,137 0 6,505 1,137 0 6,505 1,137 0 6,505 1,137 0 1,605 0 1,105 0				12.788	1.918	735	1,351	c	160	16 957	1695 21
Access Road, Gravel Fill, 6'Thk Access Road, Gravel Fill, 6'Thk Access Road, Cavel Fill, 6'Thk Access Road, Cavel Fill, 6'Thk Access Road, Cluert 18'Dia 102a Access Road, Cluert 18'Dia 10'Dia 10'Di				198,747	29,812	11.428	20,999	0	2.481	261.468	15.5
Access Road, Cavuer Fill, 6°TH, 5100.00 CY 40.417 6.653 2.514 4.270 0 505 Access Road, Cavuer Fill, 6°TH, 5100.00 LF 11.324 1.699 2.51 1.197 0 141 Access Road, Ditches 7700.00 LF 14.214 2.112 5.46 1.004 0 1719 0				6,935	1,040	399	733	0	87	9, 193	2.97
Access Road, Culvert 18°Dia 10Ea 500.00 LF 11.324 1.69 6.61 1.197 0 141 Access Road, Dicthes 500.00 LF 700.00 LF 14.214 2.169 8.17 1.502 0 177 Access Road, Dicthes 700.00 LF 700.00 LF 9.500 1.425 846 1.004 0 119 DDISPOSAL SITE DEVELOPMENT D-Containment Berm, Colvertile 600.00 SY 20.271 1.001 1.166 2.142 0 253 D-Containment Berm, Colvertile 700.00 LF 11.324 1.699 651 1.197 0 1.41 D-Containment Berm, Colvertile 700.00 CY 20.271 1.001 1.166 2.142 0 253 D-Containment Berm, Colvertile 700.00 CY 20.271 1.001 2.10 2.10 2.10 2.10 2.10 2.10 2.				40,417	6,063	2,324	4,270	0	505	53,578	17.28
Access Road, Ditches Access Road, Seeding LoughAND DISPOSAL HAU, ROAD DisposAL SITE DEVELOPMENT DI				11,324	1,699	651	1,197	0	141	15,012	30.02
DISPOSAL SITE DEVELORMENT				14,214	2,132	817	1,502	0	177	18,843	2.45
Disposal SITE DEVELOPHENT				9,500	1,425	246	1,004	0	119	12,594	2518.72
DOTOGRAINMENT Berm, Dike D-Containment Berm, Dike D-Containment Berm, Caldettie 6800.00 SY Containment Berm, Caldettie Contai	TOTAL UP	CAND DISPOSAL HAUL ROAD		293,925	44,089	16,901	31,055	0	3,670	389,640	55.66
D-Containment Berm, Dike 6800.00 CY 20.271 1,010 1,166 2,142 0 253 D-Containment Berm, Culverti2 Dia 2800.00 LF 4,762 1,714 271 1,014 271 5,013 0 1,141 D-Containment Berm, Culverti2 Dia 2800.00 LF 1,154 1,699 651 1,137 0 141 D-Containment Berm, Culverti2 Dia 2800.00 LF 1,154 1,699 651 1,137 0 141 D-Containment Berm, Culverti2 Dia 2,50 ACR 1,542 1,13 1,146 2,69 0 1,141 D-Containment Berm, Culverti2 Dia 2,50 ACR 1,569 1,13 1,146 2,69 0 1,141 D-Containment Berm, Culverti2 Dia 2,50 ACR 1,569 1,13 1,146 2,69 0 1,141 D-Containment Berm, Culverti2 Dia 2,50 ACR 1,569 1,13 1,146 2,69 0 1,141 D-Containment Berm, Culverti2 Dia 2,50 ACR 1,569 ACR 1,13 1,146 2,60 0 1,141 D-Containment Berm, Culverti2 Dia 2,50 ACR 1,140 1,14	01.12.06.03.007- UPLAND										
D-Containment Berm, Culvertile 6800.00 SY 20.271 1,041 1,166 2,142 0 259 D-Containment Berm, Culvertile 500.00 LF 11,124 1,699 651 1,197 0 141 D-Containment Berm, Culvertile Dia 500.00 LF 11,124 1,699 651 1,197 0 141 D-Containment Berm, Culvertile Dia 500.00 LF 11,124 1,699 651 1,197 0 141 D-Containment Berm, Culvertile Dia 500.00 CY 2,542 381 146 269 0 12 D-Containment Berm, Top Soil 1000.00 CY 4,750 713 2,77 2,905 5,137 0 611 D-Containment Berm, Collvertile Dia 1000.00 CY 50,513 7,577 2,905 5,137 0 611 D-Containment Berm, Chief TiM 200000 CY 3,691 2,54,674 212,625 390,698 0 46,169 D-Containment Berm, Chief TiM 200000 CY 3,691 2,54,674 212,625 390,698 0 46,169 D-Containment Berm, Chief TiM 200000 CY 3,691 2,737 2,905 5,137 0 611 D-Containment Berm, Chief TiM 200000 CY 3,691 2,731 1,039 1,991 6,965 0 1,222 B-CONPACTED CONCRETE CAP RCC Compacted Gravel Fill, 6**Thk 5056.00 CY 564,189 84,628 32,441 59,610 0 10,455 RCC Compacted Concrete, 1**Thick 10111.00 CY 648,186 97,228 37,271 68,485 0 12,012 D-CONTAINOR RIVERS BANGERIVERS BANGERIVERS BANGERIVER DEWIN 9077 & 19,973,147 2,703,541 1,133,844 1,965,168 0 220,553 B-CONTAIN PORTS & HARBORS B-CONTAIN B-CONTEIL Upland D B-CONTAIN B-CONTEIL TO B-CONTEIL TO B-CONTEIL TO B-CONTAIN B-CONTEIL TO B-CONTEIL TO B-CONTAIN B-CONTEIL TO B-CONTEIL TO B-CONTEIL TO B-CONTAIN B-CONTEIL TO B-CONTEIL TO B-CONTAIN B-CONTEIL TO B-CONTEIL TO B-CONTEIL TO B-CONTAIN B-CONTEIL TO B-CONTEIL T				6,864	1,030	395	725	0	99	660.6	1 17
D-Containment Bern, Collverill' Dia 500.00 LF 11,324 1,699 651 1,197 0 141 D-Containment Bern, Collverill' Dia 500.00 LF 11,324 1,699 651 1,197 0 141 D-Containment Bern, Collverill' Dia 2.50 ACR 2,542 381 146 526 269 0 32 D-Containment Bern, Seeding 2.50 ACR 2,542 381 149 0 141 D-Containment Bern, Seeding 2.50 ACR 2,542 381 149		Berm,		20,271	3,041	1,166	2,142	0	253	26.872	3.95
D-Containment Berm, CulverilB*Dia 500.00 LF 11,324 1,699 651 1,197 0 141 D-Containment Berm, CulverilB*Dia 500.00 CY 2,542 181 146 269 0 32 D-Containment Berm, Seeding 2.50 ACR 4,750 ACR 2,542 181 146 269 0 32 D-Containment Berm, Seeding 2.50 ACR 2,542 181 146 269 0 32 UPLAND DISPOSAL SITE DEVELOPHENT 2000000 CY 50,513 7,577 2,905 5,337 0 631 DISPOSAL/TRANSFER DEV, CHIEF TIM 2000000 CY 3,697,826 554,674 212,625 390,698 0 46,169 COMPACTED CONCRETE CAP RCC Prep, Grade and Compact Site 272997.00 SF 65,924 9,889 17,911 6,995 0 1,222 RCC Compacted Gravel Fill, 6*Thk 5056.00 CY 564,189 84,628 32,441 59,610 0 11,222 RCC Compacted Concrete, 1*Thick 10111.00 CY 564,189 84,628 37,271 68,485 0 12,012 DISPOSAL/TRANSFER CAP, CHIEF TIM 272997.00 SF 648,186 97,228 37,271 68,485 0 12,012 DISPOSAL/TRANSFER CAP, CHIEF TIM 272997.00 SF 648,186 97,228 37,271 68,485 0 12,012 DISPOSAL/TRANSFER CAP, CHIEF TIM 272997.00 SF 648,186 97,228 37,271 68,485 0 12,012 DISPOSAL/TRANSFER CAP, CHIEF TIM 272997.00 SF 648,186 97,228 37,271 68,485 0 12,012 DISPOSAL/TRANSFER CAP, CHIEF TIM 272997.00 SF 648,186 97,228 37,271 68,485 0 12,012 DREDGING RIVERS NAVIGATION, PORTS & HARBORS SNAKE RIVER DWMS 99 19,993.347 2,703,543 1,133,844 1,965,368 0 220,553 Dredging 2-M CUM CONFIL Upland D 19,993,347 2,703,543 1,133,844 1,965,368 0 220,553				4,762	714	274	503	0	59	6,313	22.55
D-Containment Berm, Top Soil 1000.00 CY 2.542 381 146 269 0 32 D-Containment Berm, Top Soil 2.50 ACR 4,750 713 249 559 0 599 UPLAND DISPOSAL SITE DEVELOPHENT 2000000 CY 3,697,826 554,674 212,625 390,698 0 46,169 DISPOSAL/TRANSFER CAP, CHIEF TIM 2000000 CY 3,697,826 554,674 212,625 390,698 0 46,169 COMPACTED CONCRETE CAP RCC PREP, Grade and Compact Site 272997.00 SF 648,186 97,228 37,271 68,485 0 12,012 DISPOSAL/TRANSFER CAP, CHIEF TIM 272997.00 SF 648,186 97,228 37,271 68,485 0 12,012 DISPOSAL/TRANSFER CAP, CHIEF TIM 272997.00 SF 648,186 97,228 37,271 68,485 0 12,012 DISPOSAL/TRANSFER CAP, CHIEF TIM 272997.00 SF 648,186 97,228 37,271 68,485 0 12,012 DISPOSAL/TRANSFER CAP, CHIEF TIM 272997.00 SF 648,186 97,228 37,271 68,485 0 12,012 DISPOSAL/TRANSFER CAP, CHIEF TIM 272997.00 SF 648,186 97,228 37,271 68,485 0 220,553 SNAVIGATION, PORTS & HARBORS 19,973,347 2,703,543 1,133,844 1,965,168 0 220,553 Dredging 2-M CUY Confil. Upland D 19,973,347 2,703,543 1,133,844 1,965,168 0 220,553 Dredging 2-M CUY Confil. Upland D 19,973,347 2,703,543 1,133,844 1,965,168 0 220,553				11,324	1,699	651	1,197	0	141	15,012	30.02
D-Containment Berm, Seeding 2.50 ACR 4,750 713 273 502 0 59 UPLAND DISPOSAL SITE DEVELOPHENT 2000000 CY 50,513 7,577 2,905 5,337 0 631 DISPOSAL/TRANSFER DEV, CHIEF TIM 2000000 CY 3,697,826 554,674 212,625 390,698 0 46,169 STANSFER CAP, CHIEF TIM 2000000 CY 3,697,826 554,674 212,625 390,698 0 46,169 STANSFER CAP, CHIEF TIM 2000000 CY 3,697,826 554,674 212,625 390,698 0 46,169 STANSFER CAP, CHIEF TIM 200000 CY 3,697,826 554,674 212,625 390,698 0 46,169 STANSFER CAP, CHIEF TIM 272997.00 SF 648,186 97,228 37,271 68,485 0 12,012 DISPOSAL/TRANSFER CAP, CHIEF TIM 272997.00 SF 648,186 97,228 37,271 68,485 0 12,012 DISPOSAL/TRANSFER CAP, CHIEF TIM 272997.00 SF 648,186 97,228 37,271 68,485 0 12,012 STANSFER LARBORS 19,973,447 2,703,543 1,133,844 1,965,368 0 220,553 STANSE RIVER DWMS 99 19,973,447 2,703,543 1,133,844 1,965,368 0 220,553 DEFENDENCE OF CULT Upland D 19,973,447 2,703,543 1,133,844 1,965,368 0 220,553				2,542	381	146	269	0	32	3,370	3.37
UDISPOSAL/TRANSFER DEV, CHIEF TIM 2000000 CY 50,513 7,577 2,995 5,337 0 631 DISPOSAL/TRANSFER DEV, CHIEF TIM 2000000 CY 3,697,826 554,674 212,625 390,698 0 46,169 TRANSFER CAP, CHIEF TIM COMPACTED CONCRETE CAP RCC Prep, Grade and Compact Site 272997.00 SF 64,94 9,889 32,441 6,965 0 1,222 RCC Compacted Gravel Fill, 6°Thk 5056.00 CY 564,189 84,628 32,441 59,610 0 10,455 RCC COMPACTED CONCRETE CAP RCC COMPACTED CONC		Berm,	2.50 ACR	4,750	713	273	202	0	59	6,297	2518.72
TRANSFER CAP, CHIEF TIM COMPACTED CONCRETE CAP TRANSFER CAP, CHIEF TIM COMPACTED CONCRETE CAP TRANSFER CAP, Grade and Compact Site 272997.00 SF TRANSFER CAP, Grade and Compact Site Site Site Site Site Site Site Sit	TOTAL UP	LAND DISPOSAL SITE DEVELOPMENT		50,513	1,577	2,905	5,337	0	631	66,963	0.03
TRANSFER CAP, CHIEF TIH COMPACTED CONCRETE CAP RCC Prep, Grade and Compact Site 272997.00 SF 645,189 9,889 1,791 6,965 0 1,222 RCC Compacted Gravel Fill, 6'Thick 10111.00 CY 564,189 84,628 12,441 59,610 0 10,455 RCC Compacted Concrete, 1'Thick 10111.00 CY 564,189 84,628 12,441 59,610 0 10,455 RCC Compacted Concrete, 1'Thick 10111.00 CY 648,186 97,228 17,271 68,485 0 12,012 DISPOSAL/TRANSFER CAP, CHIEF TIM 272997.00 SF 648,186 97,228 17,271 68,485 0 12,012 DISPOSAL/TRANSFER CAP, CHIEF TIM 272997.00 SF 648,186 97,228 17,271 68,485 0 12,012 ONEDGING RIVERS NAVIGATION, PORTS & HARBORS SNAKE RIVER DHMS 99 1,113,844 1,965,168 0 220,553 Dredging 2-M CUY Confl. Upland D 19,973,347 2,703,543 1,133,844 1,965,168 0 220,553	TOTAL DI	SPOSAL/TRANSFER DEV, CHIEF TIM	2000000 CY	3,697,826	554,674	212,625	390,698	0	46,169	4,901,992	2.45
COMPACTED CONCRETE CAP RCC Compacted Gavel Fill, 6'Thk 5056.00 CY 564,189 84,628 32,441 59,610 0 1,222 RCC Compacted Gavel Fill, 6'Thk 5056.00 CY 564,189 84,628 32,441 59,610 0 10,455 RCC Compacted Concrete, 1' Thick 10111.00 CY 564,189 84,628 37,211 68,485 0 12,012 RCC COMPACTED CONCRETE CAP 10111.00 CY 648,186 97,228 37,271 68,485 0 12,012 DISPOSAL/TRANSFER CAP, CHIEF TIM 272997.00 SF 646,186 97,228 37,271 68,485 0 220,553 NAVIGATION, PORTS & HARBORS 2000000 CY 19,973,347 2,703,543 1,133,844 1,965,368 0 220,553 SNAKE RIVER DAMAS 99 19,973,347 2,703,543 1,133,844 1,965,368 0 220,553 DISPOSAL/TRANSFER CAP CONFILL Upland D 19,973,347 2,703,543 1,133,844 1,965,368 0 220,553		NSFER CAP, CHIEF TIM									
RCC Prep, Grade and Compact Site 272997.00 SF 18.073 2,711 1,039 1,910 0 335 RCC Compacted Gravel Fill, 6-Thk 505.00 CY 65,924 9,889 3,791 6,655 0 1,222 RCC Compacted Gravel Fill, 6-Thk 505.00 CY 564,189 84,628 32,441 59,610 0 10,455 RCC COMPACTED CONCRETE CAP 10111.00 CY 648,186 97,228 37,271 68,485 0 12,012 DISPOSAL/TRANSFER CAP, CHIEF TIM 272997.00 SF 648,186 97,228 37,271 68,485 0 12,012 DREDGING RIVERS 2000000 CY 19,973,347 2,703,543 1,113,844 1,965,168 0 220,553 SNAKE RIVER DHMS 99 19,973,347 2,703,543 1,113,844 1,965,168 0 220,553 Dredging 2-M CUY Confl. Upland D 19,973,347 2,703,543 1,113,844 1,965,168 0 220,553		PACTED CONCRETE CAP									
RCC Compacted Gravel Fill, 6°Thk 5056.00 CY 65,994 9,889 3,791 6,965 0 1,222 RCC Compacted Concrete, 1°Thick 10111.00 CY 664,189 84,628 32,441 59,610 0 10,455 RCC COMPACTED CONCRETE CAP 10111.00 CY 648,186 97,228 37,271 68,485 0 12,012 DISPOSAL/TRANSFER CAP, CHIEF TIM 272997.00 SF 648,186 97,228 37,271 68,485 0 12,012 DREDGING RIVERS NAVIGATION, PORTS & HARBORS 19,973,347 2,703,543 1,133,844 1,965,188 0 220,553 SNAKE RIVER DMMS 99 19,973,347 2,703,543 1,133,844 1,965,188 0 220,553 Dredging 2-M CUY Confl. Upland D 19,973,347 2,703,543 1,133,844 1,965,188 0 220,553			272997.00	18,073	2,711	1,039	1,910	0	335	24.068	0.09
NEC COMPACTED CONCRETE CAP 10111.00 CY 648,186 97,228 17,271 68,485 0 12,012 DISPOSAL/TRANSFER CAP, CHIEF TIM 272997.00 SF 648,186 97,228 17,271 68,485 0 12,012 DREDGING RIVERS NAVIGATION, PORTS & HARBORS SNAKE RIVER DMMS 99 19,973,347 2,703,543 1,133,844 1,965,188 0 220,553 Dredging 2-M CUY Confl. Upland D 19,973,347 2,703,543 1,133,844 1,965,188 0 220,553		C Compacted Gravel Fill, 6 Thk		65,924	9,889	3,791	6,965	0 (1,222	87,790	17.36
CY 648,186 97,228 37,271 68,485 0 12,012 SF 648,186 97,228 37,271 68,485 0 12,012 CY 19,973,347 2,703,543 1,133,844 1,965,168 0 220,553 19,973,347 2,703,543 1,133,844 1,965,168 0 220,553 19,973,347 2,703,543 1,133,844 1,965,168 0 220,553		1		607'*00	070'50	32,441	019,65	0	10,455	751, 323	74.31
CY 19,973,347 2,703,543 1,133,844 1,965,368 0 220,553 19,973,347 2,703,543 1,133,844 1,965,368 0 220,553 19,973,347 2,703,543 1,133,844 1,965,368 0 220,553 19,973,347 2,703,543 1,133,844 1,965,368 0 220,553	TOTAL RC	C COMPACTED CONCRETE CAP		648,186	97,228	37,271	68,485	0	12.012	863,181	85.37
2000000 CY 19,973,347 2,703,543 1,133,844 1,965,368 0 220,553 155 E. HARBORS 19,973,347 2,703,543 1,133,844 1,965,368 0 220,553 19,973,347 2,703,543 1,133,844 1,965,368 0 220,553 17 Confl. Upland D 19,973,347 2,703,543 1,133,844 1,965,368 0 220,553	TOTAL DI	SPOSAL/TRANSFER CAP, CHIEF TIM		648,186	97,228	172,78	68,485	0	12,012	863,181	3.16
PORTS & HARBORS 19,973,347 2,703,543 1,133,844 1,965,368 0 220,553 DMMS 99 19,973,347 2,703,543 1,133,844 1,965,368 0 220,553 1 CuY Confl. Upland D 19,973,347 2,703,543 1,133,844 1,965,368 0 220,553	TOTAL DR	EDGING RIVERS	2000000 CY				,965,368	0	220,553	25,996,655	13.00
DMMS 99 19,973,347 2,703,543 1,133,844 1,965,368 0 220,553 1 CuY Confl. Upland D 19,973,347 2,703,543 1,133,844 1,965,368 0 220,553	TOTAL NA						,965,368	0	220,553	25,996,655	
-M CuY Confl. Upland D 19,973,347 2,703,541 1,133,844 1,965,168 0 220,553	TOTAL SN				,703,543 1	,133,844 1	, 965, 368	0	220,553	25,996,655	
	TOTAL DE			19,973,347 2	,703,543 1	,133,844 1	, 965, 368	0	220,553	25,996,655	

EQUIP ID: NAT97C LABOR ID: NAT99A

Currency in DOLLARS

Mon 14 Aug 2000 Eff. Date 05/01/99 ERROR REPORT

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMUZM: Dredging 2-M CuY Confl. Upland D - DMMS Dredging
PLANNING ESTIMATE - 2,000,000 CY OF DREDGE MAT

TIME 11:35:35

ERROR PAGE

No errors detected...

* * END OF ERROR REPORT * * *

LABOR ID: NAT99A EQUIP ID: NAT97C

Currency in DOLLARS

Mon 14 Aug 2000 Eff. Date 05/01/99 TABLE OF CONTENTS

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMUZM: Dredging 2-M CuY Confl. Upland D - DMMS Dredging
PLANNING ESTIMATE - 2,000,000 CY OF DREDGE MAT

TIME 11:35:35

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No Detailed Estimate...

PROJECT INDIRECT SUMMARY - CSI ITEM.......

SUMMARY REPORTS

SUMMARY PAGE

No Backup Reports...

* * * END TABLE OF CONTENTS * * *

Upland 1.d

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMU07: Dredging 725tCuY Confl. Upland D - DMMS Dredging
PLANNING ESTIMATE - 725,000 CY OF DREDGE MAT

TIME 11:41:09

TITLE PAGE

Dredging 725tCuY Confl. Upland D DWMS Dredging of Snake & Clearwater Rivers with Upland Disposal

Designed By: Walla Walla District COE Estimated By: R. Hynek and J. Davin

Prepared By: Cost Engineering Branch Kim Callan, Chief

05/28/99 05/01/99 60 Days

Preparation Date: Effective Date of Pricing: Est Construction Time:

7.908 Sales Tax: M C A C E S F O R W I N D O W S Software Copyright (c) 1985-1998 by Building Systems Design, Inc. Release 1.2c

Currency in DOLLARS

EQUIP ID: NAT97C

LABOR ID: NAT99A

UPB ID: UP99EA CREW ID: NAT99A

Mon 14 Aug 2000 Eff. Date 05/01/99 PROJECT NOTES

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMU07: Dredging 725tCuY Confl. Upland D - DMMS Dredging
PLANNING ESTIMATE - 725,000 CY OF DREDGE MAT

TIME 11:41:09

TITLE PAGE

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Project Description:
The Stake Niver dredging areas are assumed to extend from the vicinity of
The Stake Niver dredging areas are assumed to the State Highway 12
Silcott Island near Snake River Mile 131 upstream to the State Highway 12
bridge upstream of the confluence of the Snake and Clearwater Rivers, located
near Snake River Mile 139.5. The Clearwater River dredging areas are assumed
tro extend from the Snake River confluence upstream to the Port of Lewiston,
to extend from the Snake River confluence upstream to the Port of Lewiston,
All material assumed to be disposed of utilizing a transfer station near
Snake River Mile 131, located near the Mouth of Alpowa Creek where the
material will be temporarily stored. The material will be rehandled from the
Transfer Station to the final Disposal Area at the Page Creek - East Side
Site. The disposal site is assumed adequate to contain all materials

Basis of Design:

Planning level estimate produced utilizing the MICRO Computer Aided Cost Estimating System (MCACES) and Cost Engineering Dredge Estimating Program (CEDEP)

Overtime:

Overtime is anticipated. The Government Estimate is based on a 24 hour operation. Work shall be conducted on a 24 hr/day, 3-8 hour shifts/day, 7 days/week, considering 4 holidays.

Construction Windows:

Dredging operations will begin on 15 December, and shall not continue after 28 Feb, in any given year, due to the fish window requirements.

Sub Contracting Plan:

No Sub Contracting considered all work to be performed by Prime Contractor.

Site Access:

It is assumed all Disposal Transfer Sites \boldsymbol{k} the In-water Disposal sites are accessible without further dredging requirements.

Construction Methodology:

Common dredging methods using 15cy clamshell dredges, with the use of scows for in-water disposal. The dredging material will be offloaded from the barges on to the transfer site where the material will be allowed to dewater. The material may be moved from the Transfer Station to the final Disposal Area throughout the remainder of the year.

Conditions:

This work will take place during winter months. The anticipated types of soil to be incountered are sand/silts/gravels/cobbles. The use of clamshells and Scows has been considered, due to the anticipated existence of silt type materials within the Confluence areas. Considerations for within the class due to traffic, and coordination efforts have been accounted for within the effective working time. No adverse weather conditions other than normal winter work weather has been assumed.

Equipment/Labor Availability & Distance Traveled: Assume labor will be available within the project location. Equipment

Currency in DOLLARS

LABOR ID: NAT99A EQUIP ID: NAT97C

CREW ID: NAT99A UPB ID: UP99EA

Mon 14 Aug 2000 Eff. Date 05/01/99 PROJECT NOTES

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMU07: Dredging 725tCuY Confl. Upland D - DMMS Dredging
PLANNING ESTIMATE - 725,000 CY OF DREDGE MAT

TIME 11:41:09

TITLE PAGE

of the Snake and Clearwater Rivers, approximately 463 River Miles to allow contractors from Portland & Seattle to compete. All equipment is considered when or ental equipment considered. All equipment other than dredging plant rates were computed based on the EP 1110-1-8. All equipment other than Dredging Plant mob and demob costs computed as 5% of the direct costs. Mobilization will be from the Mouth of the Columbia River to the Confluence

Environmental Concerns:

Turbidity monitoring will be required during the dredging operation. Sieve analysis testing for course grained and fine grained materials will be required for determining location of disposal area to use. No overflow will be allowed.

Contingencies: Total costs included Overhead and Profit. Escalation and contingencies are not included.

Effective dates for:
Labor: General Decision Number WA990001, Modification #1 dated 3/1/99.
Equipment: Cost Engineering Dredge Estimating Programs (CEDEP) and
Historical Dredging Equipment information.

EQUIP ID: NAT97C LABOR ID: NAT99A

Currency in DOLLARS

UPB ID: UP99EA

CREW ID: NAT99A

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMUO7: Dredging 725tCuY Confl. Upland D - DMMS Dredging
PLANNING ESTIMATE - 725,000 CY OF DREDGE MAT
** PROJECT INDIRECT SUMMARY - CSI ITEM **

SUMMARY PAGE

TIME 11:41:09

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01 SNAKE RIVER DMMS 99	99 99									
01.12 NAVIGATION, PORTS & HARBOM	PORTS & HARBORS				-		,			
01.12.06 DREDGING RIVERS	RIVERS									
01.12.06.01 MECH	01.12.06.01 MECH DREDGING, RIVER TO TRANSFER									
01.12.06.01.001- MOB. & DEMOB.	HOB. & DEMOB. AND PREWORK									
01.12.06.01.00101AA	1AA Mob. & Demob. Excavation Dredges	1.00 JB	249,956	24,996	13,748	25,261	0	3,205	317,166 317165.57	317165
	TOTAL MOB. & DEMOB. AND PREWORK	1.00 JB	249,956	24,996	13,748	25,261	0	3,205	317,166 317165.57	317165
01.12.06.01.002-	DREDGE, HAUL & OFF-LOAD MATERIAL									
01.12.06.01.00202BB 01.12.06.01.00202EB 01.12.06.01.00202EF	288 Offloading & Haul Mat to Disposel 288 Offloading Barge, with Clamshell 28F Push Mat to Dry Area, by Dozer	725000.00 CY 725000.00 CY 725000.00 CY	1,906,750 521,382 187,346	190,675 52,138 18,735	104,871 28,676 10,304	192,701 52,692 18,934	000	24,450 6,686 2,402	2,419,448 661,573 237,720	3.34 0.91 0.33
T	TOTAL DREDGE, HAUL & OFF-LOAD MATERIAL 725000.00	725000.00 CY	2,615,477	261,548	143,851	264,327	0	33,539	3,318,741	4.58
	TOTAL MECH DREDGING, RIVER TO TRANSFER 725000.00	725000.00 CY	2,865,433	286, 543	157,599	289,588	0	36,744	3,635,907	5.02
01.12.06.02 TRANS	TRANSFER MATERIAL TO DISPOSAL									
01.12.06.02.001-	01.12.06.02.001- HAUL MAT, TO DISPOSAL SITE									
01.12.06.02.00102AC	2AC Load, Haul, Spread in Disposal S 725000.00 BCY	725000.00 BCY	3,510,963	526,641	201,880	328,560	0	43,885	4,611,933	6.36
r	TOTAL HAUL MAT. TO DISPOSAL SITE	725000.00 CY	3,510,963	526,644	201,880	328,560	0	43,885	4,611,933	6.36
01.12.06.02.002- RESTORATION OF	RESTORATION OF SITES									
01.12.06.02.00202AA	Upland Site,	5.00 AC	9,500	1,425	546	889	0	119	12,479	2495.80
01.12.06.02.00202BA	Upland Si Transfer	4833.00 BCY 5.00 AC	13,442	2,016	546	1,258	00	168	17,657	3.65
01.12.06.02.002(2BC Transfer Site, Top Soil, L,H,S	4833.00 BCY	13,442	2,016	173	1,258	0	168	17,657	3.65
r	TOTAL RESTORATION OF SITES	10.00 AC	45,884	6,883	2,638	4,294	0	574	60,272	6027.22
	TOTAL TRANSFER MATERIAL TO DISPOSAL	725000.00 CY	3,556,847	533,527	204,519	332,854	0	44,458	4,672,205	6.44
•	TOTAL DREDGING RIVERS	725000.00 CY	6,422,280	820,070	362,118	622,442	0	81,202	8,308,112	11.46
F	TOTAL NAVIGATION, PORTS & HARBORS		6 422 2RD	000 000	260 110			1 6	1 4	

UPB ID: UP99EA

CREW ID: NAT99A

Currency in DOLLARS

EQUIP ID: NAT97C

LABOR ID: NAT99A

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DHW107: Dredging 725cUy Confl. Upland D - DHWS Dredging
PLANING ESTIMATE - 725,000 CY OF DREDGE MAT
** PROJECT INDIRECT SUMMARY - CSI ITEM **

TIME 11:41:09

SUMMARY PAGE

TOTAL COST UNIT COST 8,308,112 BOND 81,202 0 0 PROF Misc Ta 6,422,280 820,070 362,118 622,442 6,422,280 820,070 362,118 622,442 HOOH FOOH QUANTITY UOM TOTAL DIRECT TOTAL Dredging 725tCuY Confl. Upland D TOTAL SNAKE RIVER DMMS 99

LABOR ID: NAT99A EQUIP ID: NAT97C

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

Mon 14 Aug 2000 Eff. Date 05/01/99 ERROR REPORT

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DRHUUT: Dredging 725tCuY Confl. Upland D - DRHS Dredging
PLANNING ESTIMATE - 725,000 CY OF DREDGE MAT

TIME 11:41:09

ERROR PAGE

No errors detected...

* * * END OF ERROR REPORT * * *

LABOR ID: NAT99A EQUIP ID: NAT97C

Currency in DOLLARS

Mon 14 Aug 2000 Eff. Date 05/01/99 TABLE OF CONTENTS

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMGNUO7: Dredging 725tCuY Confl. Upland D - DMMS Dredging
PLANNING ESTIMATE - 725,000 CY OF DREDGE MAT

SUMMARY PAGE

PROJECT INDIRECT SUMMARY - CSI ITEM...

SUMMARY REPORTS

TIME 11:41:09

CONTENTS PAGE

No Detailed Estimate...

No Backup Reports...

. . END TABLE OF CONTENTS

Upland 2 Proration

PRORALING OF COST Lower Granite Pool 1,000,000 CY Annually	200	LYON	2000	1000					
rears	F101	F 7 02	F Y 0.3	FY04	FY05	FY06	FY07	FY08	FY09
,000,000 cy @ Chief Timothy	ief Timothy								
Mechanical Dredging, River to Transfer Site (Chief Timothy)	River to Transi	fer Site (Chie	f Timothy)						
Costs	\$3,895,990 \$2,895,990	\$3,895,990	\$3,895,990	\$3,895,990	\$3,895,990	\$3,895,990	\$3,895,990	\$3.895.990	\$3,895,990
Disposal (Page Creek)/Transfer (Chief Timothy) Site Development	/Transfer (Chie	f Timothy) SI	ite Developm	ent					
Costs	\$4,901,992	\$0	\$863,181	0\$	\$0	\$0	\$0	\$0	\$0
Transfer Material to Disposal Site (Page Creek) from Transfer Site (Chief Timothy) \$6.410.382 \$6.410.382 \$6.410.382	sposal Site (Pa	ige Creek) fro	56.410.382	Site (Chief Tim \$6.410.382	\$6 410.382	\$6 410 382	\$6.410 382	¢6 410 382	#E 410 202
						100,011,00	40,414,00	300,014,04	200,014,00
325,000 cy @ Chief Timothy Mechanical Dredging, River to Transfer Site (Chief Timothy) Costs	ef Timothy River to Trans	fer Site (Chie	f Timothy)						·
Transfer Material to Disposal Site (Page Creek) from Transfer Site (Chief Timothy)	sposal Site (Pa	ige Creek) fro	om Transfer	Site (Chief Tin					•
Costs	0\$	0	0	0	0	0	0	0	0
	\$	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction Subtotal	\$4,901,992	\$ 0	\$863,181	. 0\$	\$	\$0	\$0	\$0	0\$
O,M,R,R,R Subtotal	\$3,895,990 0	\$3,895,990	\$10,306,372	\$10,306,372 \$10,306,372 \$10,306,372 \$10,306,372 \$10,306,372	\$10,306,372	\$10,306,372	\$10,306,372	\$10,306,372	\$10,306,372
	\$0	\$0	\$0	\$0	\$0	\$0	\$	\$0	\$0
Totals \$0.00	\$8,797,982	\$3,895,990	\$11,169,553	\$11,169,553 \$10,306,372 \$10,306,372 \$10,306,372 \$10,306,372 \$10,306,372	\$10,306,372	\$10,306,372	\$10,306,372	\$10,306,372	\$10,306,372
Years	FY01	FY02	FY03	FY04	FV05	FVOR	EV07	EV08	200
2		1011	27.17	F104	LIND	r100	FYU	FY08	FY09

FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
\$3,895,990										
0\$	\$0	\$0	\$0	0\$	\$0	\$0	\$0	\$0	\$0	\$0
\$6,410,382	\$0	\$0	\$	\$0	\$0	\$0	\$0	\$0	\$0	\$0
_ 	\$1,818,682	\$1,818,682	\$1,818,682	\$1,818,682	\$1,818,682	\$1,818,682	\$1,818,682	\$1,818,682	\$1,818,682	\$1,818,682
·-o-	\$3,917,558	\$3,917,558	\$3,917,558	\$3,917,558	\$3,917,558	\$3,917,558	\$3,917,558	\$3,917,558	\$3,917,558	\$3,917,558
0 \$	0 \$	0\$ \$	0\$	O\$	0\$	0 0	0\$	0\$	0\$	\$
\$10,306,372	\$5,736,2	\$5,736,240	\$5,736,240	\$5,736,2	\$5,736,240	\$5,736,240	\$5,736,240	\$5,736,240	\$5,736,240	\$5,736,240
\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$10,306,372	\$5,736,240	\$5,736,240	\$5,736,240	\$5,736,240	\$5,736,240	\$5,736,240	\$5,736,240	\$5,736,240	\$5,736,240	\$5,736,240
FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20

FY32	\$0	\$1,818,682	\$3,917,558	0 \$ \$	\$5,736,240	\$0	\$5,736,240	FY32
FY31	\$0	\$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682	\$3,917,558 \$3,917,558 \$3,917,558 \$3,917,558 \$3,917,558 \$3,917,558 \$3,917,558 \$3,917,558	\$0		\$0	\$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240	FY31
FY30	\$0	\$1,818,682	\$3,917,558	\$ \$0	\$5,736,240	\$0	\$5,736,240	FY30
FY29	\$0	\$1,818,682	\$3,917,558	\$0		\$0	\$5,736,240	FY29
FY28	0\$	\$1,818,682	\$3,917,558	\$0 \$0 \$0	\$5,736,240	\$0	\$5,736,240	FY28
FY27	\$0	\$1,818,682	\$3,917,558	\$ \$0	\$5,736,240	\$0	\$5,736,240	FY27
FY26	\$0	\$1,818,682	\$3,917,558	0\$ \$0		\$0	\$5,736,240	FY26
FY25	\$0	\$1,818,682	\$3,917,558	\$ \$0	\$5,736,240	\$0	\$5,736,240	FY25
FY24	0\$	\$1,518,682	\$3,917,558	\$ \$	\$5,736,240	\$0	\$5,736,240	FY24
FY23	0\$	\$1,818,682	\$3,917,558	\$ \$	\$5,736,240	\$0 \$0	\$5,736,240	FY23
FY22	\$0	\$1,818,682 \$1,818,682 \$1,818,682 \$1,518,682	\$3,917,558 \$3,917,558 \$3,917,558 \$3,917,558	\$ \$0	\$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240	\$0	\$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240	FY22
FY21	O\$	\$1,818,682	\$3,917,558	0\$	\$5,736,240	\$0	\$5,736,240	FY21

FY44		0\$	\$1,818,682	\$3,917,558	\$0 \$0 \$5,736,240	\$0	\$5,736,240	FY44
FY43		0\$	\$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682	\$3,917,558 \$3,917,558 \$3,917,558 \$3,917,558 \$3,917,558 \$3,917,558 \$3,917,558 \$3,917,558	\$0 \$0 \$0 \$0 \$5,736,240 \$5,736,240	\$0	\$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240	FY43
FY42		0\$	\$1,818,682	\$3,917,558	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240	\$0	\$5,736,240	FY42
FY41		0\$	\$1,818,682	\$3,917,558	\$0 \$0 \$5,736,240	\$0	\$5,736,240	FY41
FY40		0\$	\$1,818,682	\$3,917,558	\$0 \$0 \$5,736,240	\$0	\$5,736,240	FY40
FY39		0\$	\$1,818,682	\$3,917,558	\$0 \$0 \$5,736,240	\$0	\$5,736,240	FY39
FY38		0\$	\$1,818,682	\$3,917,558	\$0 \$0 \$5,736,240	\$0	\$5,736,240	FY38
FY37		0\$	\$1,818,682	\$3,917,558	\$0 \$0 \$5,736,240	\$0	\$5,736,240	FY37
FY36	·	\$0	\$1,818,682	\$3,917,558	\$0 \$0 \$5,736,240	\$0	\$5,736,240	FY36
FY35		\$0	\$1,818,682	\$3,917,558	\$0 \$0 \$5,736,240	\$0	\$5,736,240	FY35
FY34		0\$	\$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682	\$3,917,558 \$3,917,558 \$3,917,558 \$3,917,558	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$5,736,240 \$5,736,240 \$5,736,240	\$0	\$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240	FY34
FY33		0\$	\$1,818,682	\$3,917,558	\$0 \$0 \$5,736,240	\$0	\$5,736,240	FY33

FY56			0	\$1,818,682	\$3,917,558	0\$	\$0 \$5,736,240	\$0	\$5,736,240	FY56
FY55			O\$	\$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682	\$3,917,558 \$3,917,558 \$3,917,558 \$3,917,558 \$3,917,558 \$3,917,558 \$3,917,558 \$3,917,558	\$0	\$0 \$5,736,240	\$0	\$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240	FY55
FY54			0	\$1,818,682	\$3,917,558	0\$	\$0 \$5,736,240	\$0	\$5,736,240	FY54
FY53			O ₽	\$1,818,682	\$3,917,558	0\$	\$0 \$0 \$0 \$0 \$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240	\$0	\$5,736,240	FY53
FY52		•	9	\$1,818,682	\$3,917,558	0\$	\$0 \$5,736,240	\$0	\$5,736,240	FY52
FY51		•	0	\$1,818,682	\$3,917,558	\$0	\$5,736,240	\$0	\$5,736,240	FY51
FY50		•	0	\$1,818,682	\$3,917,558	0\$	\$5,736,240	\$0	\$5,736,240	FY50
FY49		6	O p	\$1,818,682	\$3,917,558	\$0	\$5,736,240	\$0	\$5,736,240	FY49
FY48		É	O o	\$1,818,682	\$3,917,558	0	\$5,736,240	\$0	\$5,736,240	FY48
FY47		6	O e	\$1,818,682	\$3,917,558	0\$	\$5,736,240	\$0	\$5,736,240	FY47
FY46		Ę	P	\$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682	\$3,917,558 \$3,917,558 \$3,917,558 \$3,917,558	0\$	\$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240	\$0	\$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240	FY46
FY45		6	9	\$1,818,682	\$3,917,558	0\$	\$5,736,240	\$0	\$5,736,240	FY45

FY68		0 \$	1,818,682	3,917,558	\$0 \$0 \$5,736,240	\$0	55,736,240	FY68
FY67		\$	\$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682	83,917,558 \$3,917,558 \$3,917,558 \$3,917,558 \$3,917,558 \$3,917,558 \$3,917,558 \$3,917,558	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240	\$0	55,736,240 \$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240	FY67
FY66		\$	\$1,818,682	\$3,917,558	\$0 \$0 \$5,736,240	\$0	\$5,736,240	FY66
FY65		0	\$1,818,682	\$3,917,558	\$0 \$0 \$5,736,240	\$0	\$5,736,240	FY65
FY64		9 -	\$1,818,682	\$3,917,558	\$0 \$0 \$5,736,240	\$0	\$5,736,240	FY64
FY63		0\$	\$1,818,682	\$3,917,558	\$0 \$0 \$5,736,240	\$0	\$5,736,240	FY63
FY62	·	0\$	\$1,818,682	\$3,917,558	\$0 \$0 \$0 \$0 5.736,240 \$5,736,240	\$0	\$5,736,240	FY62
FY61		0 \$	\$1,818,682	\$3,917,558	\$0 \$0 \$5,736,240	\$0	\$5,736,240	FY61
FY60		0\$	\$1,818,682	\$3,917,558	\$0 \$0 \$5,736,240	\$0	\$5,736,240	FY60
FY59		\$0	\$1,818,682	\$3,917,558	\$0 \$0 \$5,736,240	\$0	\$5,736,240	FY59
FY58		0	\$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682	\$3,917,558 \$3,917,558 \$3,917,558 \$3,917,558	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$5,736,240 \$5,736,240 \$	\$0	\$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240	FY58
FY57		0 \$	\$1,818,682	\$3,917,558	\$0 \$0 \$5,736,240	\$0	\$5,736,240	FY57

0\$	\$5,765,173	\$0 \$51,283,056	\$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682 \$1,818,682	\$3,917,558 \$3,917,558 \$250,723,712	\$0 \$0 \$0 \$0 \$0\$ · \$5,765,173	\$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240 \$457,362,316 \$0 \$0 \$0 \$0 \$0 \$0	\$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240 \$5,736,240 \$463,127,489	3 FY74 74 Years
			\$1,818,68		0, 0,	\$5,736,24	\$5,736,24	FY73
		0 \$	\$1,818,682	\$3,917,558	0\$ \$0	\$5,736,240 \$0	\$5,736,240	FY72
		0 \$	\$1,818,682	\$3,917,558	0\$	\$5,736,240 \$0	\$5,736,240	FY71
		\$	\$1,818,682	\$3,917,558 \$3,917,558 \$3,917,558 \$3,917,558	000	\$5,736,240	\$5,736,240	FY70
		0	\$1,818,682	\$3,917,558	0\$	\$5,736,240 \$0	\$5,736,240	FY69

Upland 2.a.b.c.d

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DHMUIM: Dredging 1-M CuY Confl. Upland D - DHMS Dredging
PLANNING ESTIMATE - 1,000,000 CY OF DREDGE MAT

TIME 11:39:02

TITLE PAGE

Dredging 1-M Cuy Confl. Upland D DMMS Dredging of Snake & Clearwater Rivers with Upland Disposal

Designed By: Walla Walla District COE Estimated By: R. Hynek and J. Davin

Cost Engineering Branch Kim Callan, Chief Prepared By:

05/28/99 05/01/99 60 Days Preparation Date: Effective Date of Pricing: Est Construction Time:

7.908 Sales Tax:

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Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

EQUIP ID: NAT97C LABOR ID: NAT99A

05/01/99 Mon 14 Aug 2000 Eff. Date 05/01/ PROJECT NOTES

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DHWUIM: Dredging 1-M CuY Confl. Upland D - DHMS Dredging
PLANNING ESTIMATE - 1,000,000 CY OF DREDGE MAT

TITLE PAGE

River dredging areas are assumed to extend from the Snake River confluence upstream to the Port of Lewiston, from Clearwater River Mile 0.00 to Clearwater River Mile 1.66. All material assumed to be disposed of utilizing from the vicinity of Silcott Island near Snake River Mile 131 upstream to the State Highway 12 bridge upstream of the confluence of the Snake and Clearwater Rivers, located near Snake River Mile 139.5. The Clearwater a transfer station near Snake River Mile 131, located near the Mouth of Alpowa Creek where the material will be temporarily stored. The material will be rehandled from the Transfer Station to the final Disposal Project Description: The Snake River dredging areas are assumed to extend Area at the Page Creek - East Side Site. The disposal site is assumed adequate to contain all materials dredged.

Basis of Design: Planning level estimate produced utilizing the MICRO Computer Aided Cost Estimating System (MCACES) and Cost Engineering Dredge Estimating Program (CEDEP) Overtime: Overtime is anticipated. The Government Estimate is based on a 24 hour operation. Work shall be conducted on a 24 hr/day, 3-8 hour shifts/day, 7 days/week, considering 4 holidays.

Construction Windows: Dredging operations will begin on 15 December, and shall not continue after 28 Feb, in any given year, due to the fish window requirements. Construction of the Transfer Station and the Disposal Area will occur during years one and two. Construction Windows:

Sub Contracting Plan: No Sub Contracting considered all work to be performed by Prime Contractor.

Site Access: It is assumed all Disposal Transfer Sites & the In-water Disposal sites are accessible without further dredging requirements.

dredges, with the use of scows for in-water disposal. The Transfer Station and the Disposal area will be constructed during the first two years. The first two years dredging material will be used for development of the Transfer Station. After year two the dredging material will be offloaded from the barges on to the Transfer Station site where the material will be aloved to dewater. The material may be moved from the Transfer Station to Construction Methodology: Common dredging methods using 15cy clamshell the final Disposal Area throughout the remainder of the year. Conditions: This work will take place during winter months. The anticipated types of soil to be incountered are sand/silts/gravels/cobbles. The use of Clamshells and Scows has been considered, due to the anticipated existence of silt type materials within the Confluence areas. Considerations for delays due to traffic, and coordination efforts have been accounted for within the effective working time. No adverse weather conditions other than winter work weather has been assumed,

Equipment/Labor Availability &

Distance Traveled: Assume labor will be available within the project location. Equipment Mobilization will be from the Mouth of the Columbia

Currency in DOLLARS

EQUIP ID: NAT97C CABOR ID: NAT99A

UPB ID: UP99EA CREW ID: NAT99A

Mon 14 Aug 2000 Eff. Date 05/01/99 PROJECT NOTES

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DHMUIM: Dredging 1-M CuY Confl. Upland D - DMMS Dredging
PLANNING ESTIMATE - 1,000,000 CY OF DREDGE MAT

TIME 11:39:02

TITLE PAGE

River to the Confluence of the Snake and Clearwater Rivers, approximately 463 River Miles to allow contractors from Portland & Seattle to compete. All equipment is considered owned - no rental equipment considered. All equipment other than the dredging plant rates were computed based on the EP 1110-1-8. All equipment other than Dredging Plant mob and demob costs computed as 5% of the direct costs.

Environmental Concerns: Turbidity monitoring will be required during the dradding operation. Sieve analysis testing for course grained and fine grained materials will be required for determining location of disposal area to use. No overflow will be allowed.

Contingencies: Total costs include Overhead and Profit. Escalation and contingencies are not included.

Effective dates for: Labor: General Decision Number WA990001, Modification #1 dated 3/1/99. Equipment: Cost Engineering Dredge Estimating Programs (CEDEP) and Historical Dredging Equipment information.

LABOR ID: NAT99A EQUIP ID: NAT97C

Currency in DOLLARS

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DHNUIM: Dredging 1-M CuY Confl. Upland D - DHNS Dredging
PLANNING ESTIMATE - 1,000,000 CY OF DREDGE MAT
** PROJECT INDIRECT SUMMARY - CSI ITEM **

SUMMARY PAGE

TIME 11:39:02

TOTAL COST UNIT COST BOND PROF Misc Ta HOOH FOOH QUANTITY UOM TOTAL DIRECT

01.12 NAVIGATION, PORTS & HARBORS									
					÷				
01.12.06 DREDGING RIVERS									
01.12.06.01 MECH DREDGING, RIVER TO TRANSFER									
01.12.06.01.001- MOB. & DEMOB. AND PREWORK									
01.12.06.01.00101AA Mob. & Demob. Excavation Dredges	1.00 JB	275,294	27,529	15,141	27,822	0	3,467	349,254 349253.90	349253
TOTAL MOB. & DEMOB. AND PREMORK	1.00 JB	275,294	27,529	15, 141	27,822	0	3,467	349,254 349253.90	349253
01.12.06.01.002- DREDGE, HAUL & OFF-LOAD MATERIAL									
01.12.06.01.00202BB Dredging & Haul Mat to Disposal 01.12.06.01.00202EB Offloading Barge, with Clamshell 01.12.06.01.00202EF Push Mat to Dry Area, by Dozer	1000000 CY 1000000 CY 1000000 CY	1,860,000 688,205 247,455	186,000 68,821 24,746	102,300 37,851 13,610	187,976 69,552 25,008	000	23,427 8,668 3,117	2,359,704 873,097 313,936	2.36 0.87 0.31
TOTAL DREDGE, HAUL & OFF-LOAD MATERIAL	1000000 CY	2,795,660	279,566	153,761	282,536	0	35,212	3,546,736	3.55
TOTAL MECH DREDGING, RIVER TO TRANSFER	1000000 CY	3,070,954	307,053	168,902	310,358	0	38,680	3,895,990	3.90
01.12.06.02 TRANSFER MATERIAL TO DISPOSAL									
01.12.06.02.001- HAUL MAT. TO DISPOSAL SITE									
01.12.06.02.00102AC Load, Haul, Spread in Disposal S	1000000 BCY	4,841,561	726,234	278,390	453,079	0	56,240	6,355,505	6.36
TOTAL HAUL MAT. TO DISPOSAL SITE	1000000 CY	4,841,561	726,234	278,390	453,079	0	56,240	6,355,505	6.36
01.12.06.02.002- RESTORATION OF SITES									
01.12.06.02.00202AA Upland Site, Hydro Seeding 01.12.06.02.00202AC Upland Site, Top Soil, L.H.S 01.12.06.02.00202BA Transfer Site, Hydro Seeding 01.12.06.02.00202BC Transfer Site, Top Soil, L.H.S	5.00 AC 4000.00 BCY 5.00 AC 4000.00 BCY	9,500 11,402 9,500 11,402	1,425 1,710 1,425 1,710	546 546 546	889 1,067 889 1,067	0000	110 132 110 132	12,471 14,968 12,471 14,968	2494.12 3.74 2494.12 3.74
TOTAL RESTORATION OF SITES	10.00 AC	41,805	6,271	2,404	3,912	0	987	54,877	5487.72
TOTAL TRANSFER MATERIAL TO DISPOSAL	1000000 CY	4,883,366	732,505	280,794	456,992	0	56,726	6,410,382	6.41
01.12.06.03 DISPOSAL/TRANSFER DEV, CHIEF TIM									
01.12.06.01.001- TRANS, RIVER DIKE & SP BARGE SLIP									

Currency in DOLLARS

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMUIN: Dredging 1-M CuY Confl. Upland D - DMMS Dredging
PLANNING ESTIGATE - 1,000,000 CY OF DREDGE MAT
** PROJECT INDIRECT SUMMARY - CSI ITEM **

TIME 11:39:02

SUMMARY PAGE 2

			QUANTITY UOM	TOTAL DIRECT	FOOH	HOOH	PROF 1	PROF Misc Ta	BOND	TOTAL COST INIT COST	FACO TIM
	01.12.06.03.00102AA	T.BS Berm, Earth Fill I. H D CC	40000								
	01.12.06.03.00102AB	T-RS Barge		193,105	28,966	11, 104	20,403	0	2,411	255,988	6.40
	01.12.06.03.00102DB	T-RS Barge	676.00	4,000,400	130,973	51,813	106,341	0	12,566	1,334,239	25.66
	01.12.06.03.001- 03AB	T-Barne Tie		589, 77	3,432	1,316	2,418	0	286	30,334	52.66
			780.00 CX	167,151	25,073	9,611	17,661	0	2,087	221,583	284.08
	TOTAL	L TRANS, RIVER DIKE & SP BARGE SLIP	2500.00 2.8	1 300 624					-	1 1 1 1 1 1 1	
				***	208,	19,903	146,822	0	17,350	1,842,144	708.52
	01.12.06.03.002- TRAN	TRANSFER DIKES, (LAND SIDE)									
	01.12.06.03.00202AA	T-Berm,	56260.00 BCY	272.548	40.882	15 673	207 90	•	,		
	01.12.06.03.00202BA			36,517	5,478	2.100	3.858	- c	3,403	361,301	6.42
	01.12.06.03.002-02KK			39,201	5,880	2,254	4.142		9 8	51 057	26.9
	01.12.06.03.00202RE	T-Berm, R-		6,780	1,017	390	716	0	5	8 987	17.81
	01.12.06.03.002-02TA	T. Berm, KFrot, Kipkap Rock 2'Thk T. Berm, Seeding Berth 5111	2075.00 CY	76,339	11,451	4,390	8,066	0	953	101,198	4R 77
			2.50 ACR	4,750	713	273	205	0	59	6,297	2518.72
	TOTAL	TOTAL TRANSFER DIKES, (LAND SIDE)	5150.00 LF	436,135	65,420	25,078	46,080	0	5,445	578.159	112 26
	01.12.06.03.003- TRAN	01.12.06.03.003- TRANS, SETTLEMENTATION PONDS, 4 EA									
	01.12.06 01 001- 018A										
	01.12.06.03.003-02KA	I-Berm, Earth Fill, Settling Pond T-Berm, Earth Fill Detentin Dond	2800.00 BCY	13,265	1,990	763	1,402	0	166	17,584	6.28
	01.12.06.03.00303AA	T-Berm, S&D Pond, OverflowCong Str	A OU BCY	126,826	19,024	7,293	13,400	0	1,583	168,126	6.47
	01.12.06.03.00303MA	T-Berm, S&D Pond, Pump Col ConcStr		20,124	7,609	2.917	5,359	0	633	67,242	8405.24
	01.12.06.03.00303OA	T-Berm, S&D Pond, Pumps Pads		19,883	2, 982	1.207	2,218	0 0	262	27,824	6955.97
					90719		101.2	>	248	26,358	6589.41
	TOTAL	TOTAL TRANS, SETTLEMENTATION PONDS, 4 EA	1.00 SF	231,687	34,753	13,322	24,479	0	2,893	307,134	307134.05
	01.12.06.03.004- TRAN	01.12.06.03.004- TRANS(BRIDGE)CRANE RAIL, UNL BARG									
	01.12.06.03.00402BA	T-BCR Set &Drive H-12x84 Columns	8400 00 1.5	250 240			1				
	01.12.06.03.00403AA	T-BCR Elevated Concrete Beams		675,293	101,294	38.829	71 149	0 0	3,199	339,689	40.44
	01.12.06.03.004USAA	T-BCR Crane Rails -Bridge Crane		140,877	21,121	8,100	14,884		1.759	186 752	545.85
		dichesed crane cost in Eq Rates	2.00 EA	0	0	0	0	0	0	0	0.01
	TOTAL	TOTAL TRANS(BRIDGE)CRANE RAIL, UNL BARG	2100.00 LF	1,072,414	160,862	61,664	113,307	0	13,389	1,421,637	676.97
	01.12.06.03.005- BRID	BRIDGE FOR HIGHWAY CROSSING									
	01.12.06.03.00502AA	Ramps, Earthern Fill, L, H, D, &C		88,972	13,346	5,116	9,401	0	1.111	117 046	
	01.12.06.03.005-0288		560.00 BCY	1,253	188	7.2	132	0	16	1,661	2.97
	01.12.06.03.00503KP		1260.00 SF	126,000	1,095	7.245	177	00	91	9.679	17.28
	a mode			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10,111		1,5/3	167,031	132.56
	TOTAL	TOTAL BRIDGE FOR HIGHWAY CROSSING	1050.00 LF	223,526	33,529	12,853	23,617	0	2,791	296,316	282.21
BOR ID: NAT99A	A EQUIP ID: NAT97C		Surrency in DOI and	2017.886							
								CREW	CREW ID: NAT99A	A UPB ID: UP99EA	P99EA

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DAWININ: Dredging 1-W CUY Confil. Upland D- DAWS Dredging
PLANNING SSTIAATE - 1,000,000 CY OF DREDGE HAT
** PROJECT INDIRECT SUMMARY - CSI ITEM **

TIME 11:39:02 SUMMARY PAGE

		11 11 11 11 11 11 11 11 11 11 11 11 11			81 38111 1043		2000	TOTAL COST ONLY COST	T T T
01.12.06.03.006- UPLAND DISPOSAL HAUL ROAD									
Access Road,	10.00 ACR	12,788	1,918	735	1,351	0	160	16,952	1695.21
01.12.06.03.00602AC Access Road, Cut & Fill - L,H,S	75000.00 BCY	198,747	29,812	11,428	20,999	0	2,481	263,468	
Access Road,		6,935	1,040	399	733	٩	8.7	9,193	
Access Road,	3100.00 CY	40,417	6,063	2,324	4,270	0	505	53,578	17.28
Access Road,		11,324	1,699	651	1,197	0	141	15,012	30.02
י קי	7700.00 LF	14,214	2,132	817	1,502	0	177	18,843	
UI.LI.Ub.UJ.UUDUZTA ACCESS KOAG, Seeding	5.00 ACR	9,500	1,425	546	1,004	D	119	12,594	2518.72
TOTAL UPLAND DISPOSAL HAUL ROAD	7000.00 LF	293,925	44,089	16,901	31,055	0	3,670	389,640	
01.12.06.03.007- UPLAND DISPOSAL SITE DEVELOPMENT									
01.12.06.03.00702AA D-Containment Berm, Dike	2700.00 CY	6,864	1,030	395	725	0	98	9,099	
D-Containment	6800.00 SY	20,271	3,041	1,166	2,142	0	253	26,872	
D-Containment		4,762	714	274	503	0	59	6,313	22.55
D-Containment Berm, C		11,324	1,699	651	1,197	0	141	15,012	
D-Containment Berm,		2,542	381	146	269	0	32	3,370	
Ul.12.Ub.U3.UU/UZTA D-Containment Berm, Seeding	2.50 ACR	4,750	713	273	205	0	66	6,297	2518.72
TOTAL UPLAND DISPOSAL SITE DEVELOPMENT	2000000 CY	50,513	7,577	2,905	5,337	0	631	66,963	
TOTAL DISPOSAL/TRANSFER DEV, CHIEF TIM	1000000 CY	3,697,826	554,674	212,625	390,698	0	46,169	4,901,992	
01.12.06.99 DISPOSAL/TRANSFER CAP, CHIEF TIM									
01.12.06.99.001- RCC COMPACTED CONCRETE CAP									
RCC Prep, Grade and Compact	272997.00 SF	18,073	2,711	1,039	1,910	0	335	24,068	
	5056.00 CY	65,924	9,889	3,791	6,965	0	1,222	87,790	
UL.14.Ub.99.UULUibb NCC Compacted Concrete, I' Thick	10111.00 CY	564,189	84,628	32,441	59,610	0	10,455	751, 323	
TOTAL RCC COMPACTED CONCRETE CAP	10111.00 CY	648,186	97,228	37,271	68,485	•	12,012	863,181	
TOTAL DISPOSAL/TRANSFER CAP, CHIEF TIM 272997.00	272997.00 SF	648,186	97,228	37,271	68,485	0	12,012	863,181	
TOTAL DREDGING RIVERS	1000000 CY	12,300,332	1,691,503	699,592	1,226,533	0	153,586	16,071,544	
TOTAL NAVIGATION, PORTS & HARBORS		12,300,332	1,691,502	699,592	1,226,533	0	153,586	16,071,544	
TOTAL SNAKE RIVER DHMS 99		12,300,332	1,691,502	699,592	1,226,533	0	153,586	16,071,544	
		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1			

Mon 14 Aug 2000 Eff. Date 05/01/99 ERROR REPORT

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DHMUIM: Dredging 1-M CuY Confl. Upland D - DHMS Dredging
PLANNING ESTIMATE - 1,000,000 CY OF DREDGE MAT

TIME 11:39:02

ERROR PAGE 1

No errors detected...

. * END OF ERROR REPORT . . .

LABOR ID: NAT99A EQUIP ID: NAT97C

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

Mon 14 Aug 2000 Eff. Date 05/01/99 TABLE OF CONTENTS

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMUIM: Dredging 1-M CuY Confl. Upland D - DMMS Dredging
PLANNING ESTIMATE - 1,000,000 CY OF DREDGE MAT

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PROJECT INDIRECT SUMMARY - CSI ITEM.....

SUMMARY REPORTS

No Backup Reports...

* * * END TABLE OF CONTENTS

Upland 2.e

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMUO4: Dredging 325tCuY Confl. Upland D - DMMS Dredging
PLANNING ESTIMATE - 325,000 CY OF DREDGE MAT

TIME 11:42:36

TITLE PAGE

Dredging 125tCuY Confl. Upland D DMNS Dredging of Snake & Clearwater Rivers with Upland Disposal

Designed By: Walla Walla District COE Estimated By: R. Hynek and J. Davin

Prepared By: Cost Engineering Branch Kim Callan, Chief

05/28/99 05/01/99 60 Days Preparation Date: Effective Date of Pricing: Est Construction Time:

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Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

EQUIP ID: NAT97C LABOR ID: NAT99A

TITLE PAGE

Project Description:

The Stake River dredging areas are assumed to extend from the vicinity of Silcott Island near Stake River Mile 131 upstream to the State Highway 12 bridge upstream of the confluence of the Stake and Clearwater Rivers, located near Shake River Mile 13). The Clearwater River dredging areas are assumed from Clearwater River to extend from the Shake River Confluence upstream to the Port of Lewiston, from Clearwater River Mile 1.66.

All material assumed to be disposed of utilizing a transfer station near Shake River Mile 131, located near the Mouth of Alpowa Creek where the material will be temporarily stored. The material will be rehandled from the Transfer Station to the final Disposal Area at the Page Creek - East Side Site. The disposal site is assumed adequate to contain all materials dredged.

Basis of Design:

Planning level estimate produced utilizing the MICRO Computer Aided Cost Estimating System (MCACES) and Cost Engineering Dredge Estimating Program (CEDEP)

Overtime:

operation. Work shall be conducted on a 24 hr/day, 3-8 hour shifts/day, 7 days/week, considering 4 holidays. The Government Estimate is based on a 24 hour Overtime is anticipated.

Construction Windows:

Dredging operations will begin on 15 December, and shall not continue after 28 Feb, in any given year, due to the fish window requirements.

Sub Contracting Plan:

No Sub Contracting considered all work to be performed by Prime Contractor. Site Access:

It is assumed all Disposal Transfer Sites & the In-water Disposal sites are accessible without further dredging requirements.

Construction Methodology:

Common dredging methods using 15cy clamshell dredges, with the use of scows for in-water disposal. The dredging material will be offloaded from the barges on to the transfer site where the material will be allowed to dewater. the material may be moved from the Transfer Station to the final Disposal Area throughout the remainder of the year. soil to be incountered are sand/silts/gravels/cobbles. The use of Clamshells and Scows has been considered, due to the anticipated existence of silt type materials within the Confluence areas. Considerations for delays due to traffic, and coordination efforts have been accounted for within the effective working time. No adverse weather conditions other than The anticipated types of This work will take place during winter months. Conditions:

Equipment/Labor Availability & Distance Traveled: Assume labor will be available within the project location. Equipment

normal winter work weather has been assumed.

Currency in DOLLARS

EQUIP ID: NAT97C

UPB ID: UP99EA CREW ID: NAT99A

LABOR ID: NAT99A

Mon 14 Aug 2000 Eff. Date 05/01/99 PROJECT NOTES

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMU04: Dredging 325tCuY Confl. Upland D - DMMS Dredging
PLANNING ESTIMATE - 325,000 CY OF DREDGE MAT

TIME 11:42:36

TITLE PAGE

Mobilization will be from the Mouth of the Columbia River to the Confluence of the Snake and Clearwater Rivers, approximately 463 River Wiles to allow contractors from Portland & Seattle to compete. All equipment is considered owned - no rental equipment considered. all equipment other than dradging plant rates were computed based on the EP 1110-1-8. All equipment other than Dredging Plant mob and demob costs computed as 5% of the direct costs.

Environmental Concerns:

Turbidity monitoring will be required during the dredging operation. Sieve analysis testing for course grained and fine grained materials will be required for determining location of disposal area to use. No overflow will be allowed.

Contingencies: Total costs include Overhead and Profit. Escalation and contingencies are not included.

Effective dates for: Labor: General Decision Number WA990001, Modification #1 dated 3/1/99. Equipment: Cost Engineering Dredge Estimating Programs (CEDEP) and Historical Dredging Equipment information.

LABOR ID: NAT99A EQUIP ID: NAT97C

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DAMGUG: Dredging 325tCuY Confl. Upland D - DAMS Dredging
PLANNING ESTIMATE - 325,000 CY OF DREDGE MAT
** PROJECT INDIRECT SUMMARY - CSI ITEM **

TIME 11:42:36

SUMMARY PAGE

01 SNAKE RIVER DMMS 99	66 S									
01.12 NAVIGATION, PORTS & HARBORS	PORTS & HARBORS									
01.12.06 DREDGING RIVERS	RIVERS									
01.12.06.01 MECH DREDGING, RIVER TO	REDGING, RIVER TO TRANSFER									
01.12.06.01.001- MOB. & DEMOB. AND	OB. & DEMOB. AND PREWORK									
01.12.06.01.00101AA Mob. & Demob.	AA Mob. & Demob. Excavation Dredges	s 1.00 JB	249,956	24,996	13,748	25,261	0	3,751	317,711 317711.39	11771
OT	TOTAL MOB. & DEMOB. AND PREWORK	1.00 JB	249,956	24,996	13,748	25,261	0	3,751	917,711 317,711	11771
01.12.06.01.002- D	DREDGE, HAUL & OFF-LOAD MATERIAL									
01.12.06.01.00202BB 01.12.06.01.00202EB	BB Dredging & Haul Mat to Disposal EB Offloading Barge, with Clamshell	325000.00	861,250	86,125	47,369	87,040	00	12,925	1,094,708	3.37
01.12.06.01.00202EF		325000.00 CY	84,489	8,449	4,647	8,539	0	1,268	107,392	0.33
TO	TOTAL DREDGE, HAUL & OFF-LOAD MATERIAL 325000.00 CY	L 325000.00 CY	1,180,872	118,087	64,948	119,342	0	17,721	1,500,970	4.62
7	TOTAL MECH DREDGING, RIVER TO TRANSFER 325000.00	R 325000.00 CY	1,430,828	143,083	78,696	144,603	0	21,472	1,818,682	5.60
01.12.06.02 TRANSF	TRANSFER MATERIAL TO DISPOSAL									
01.12.06.02.001- H	01.12.06.02.001- HAUL MAT. TO DISPOSAL SITE									
01,12.06.02.00102AC Load, Haul,	Spread in Disposal	S 325000.00 BCY	1,574,721	236,208	90,546	147,364	0	23,945	2,072,785	6.38
å	TOTAL HAUL MAT. TO DISPOSAL SITE	325000.00 CY	1,574,721	236,208	90,546	147,364	0	23,945	2,072,785	6.38
01.12.06.02.002- R	01.12.06.02.002- RESTORATION OF SITES									
01.12.06.02.002-02AA	Upland Site,	2.50 AC	4,750	713	273	445	0	72	6,252	2500.95
01.12.06.02.00202	AC Upland Site, Top Soll, L.H.S BA Transfer Site, Hydro Seeding	2.50 AC	5,161	713	273	4 8 4 2 4 5 7	00	72	6, 252	2500.95
01.12.06.02.00202BC	Transfer Sit	2167.00 BCY	5,161	174	297	483	0	7.8	6,793	3.13
74	TOTAL RESTORATION OF SITES	5.00 AC	19,822	2,973	1,140	1,855	0	301	26,091	5218.19
ħ	TOTAL TRANSFER MATERIAL TO DISPOSAL	325000.00 CY	1, 594, 543	239, 181	91,686	149, 219	0	24,246	2,098,876	6.46
አ	TOTAL DREDGING RIVERS	325000.00 CY	3,025,371	382,264	170,382	293,822	0	45,718	3,917,558	12.05
2	TOTAL NAVIGATION, PORTS & HARBORS		1 636 271	187 264	170 382	203 822		45 710		

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

2000	05/01/99
Aug	Date
14	ñ
Mon	Eff.

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMUD4: Dredging 125tCuy Confl. Upland D - DMMS Dredging
PLANNING ESTIMATE - 325,000 CY OF DREDGE HAT
** PROJECT INDIRECT SUMMARY - CSI ITEM **

TIME 11:42:36

SUMMARY PAGE

TOTAL COST UNIT COST 3,917,558 BOND 45,718 45,718 PROF Misc Ta 0 293,822 293,822 170,382 HOOH 170,382 3,025,371 382,264 FOOH QUANTITY UOM TOTAL DIRECT TOTAL Dredging 325tCuY Confl. Upland D TOTAL SNAKE RIVER DAMS 99

LABOR ID: NAT99A EQUIP ID: NAT97C

Currency in DOLLARS

UPB ID: UP99EA

CREW ID: NAT99A

Mon 14 Aug 2000 Eff. Date 05/01/99 ERROR REPORT

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DAMUG4: Dredging 125tCuY Confl. Upland D - DAMS Dredging
PLANNING ESTIMATE - 325,000 CY OF DREDGE MAT

TIME 11:42:36

ERROR PAGE

No errors detected...

* * * END OF ERROR REPORT *

LABOR ID: NAT99A EQUIP ID: NAT97C

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

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Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DAMUG4: Dredging 325tCuy Confl. Upland D - DAMS Dredging
PLANNING ESTIMATE - 325,000 CV OF DREDGE MAT

TIME 11:42:36

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No Detailed Estimate...

No Backup Reports...

. . . END TABLE OF CONTENTS . . .

Upland 3 Proration

PRORATI	NG OF CO	'PRORATING OF COST Lower Granite FY01 FY01 FY		ol 300,000 FY03	Pool 300,000 CY Annually 52 FY03	Y FY05	FY06	FY07	FY08	FY09
300,000 cy Mechanical Dr	/ @ JOSO Dredging, Ri Costs	300,000 cy @ JOSO Mechanical Dredging, River to Transfer Site (Joso) Costs \$2.884.594 \$2.884.594	fer Site (Joso) \$2.884.594	\$2.884.594	\$2.884.594	\$2.884.594	\$2.884.594	\$2.884.594	\$2.884.594	\$2.884.594
Disposal (Joso) Site Development Costs \$4,913,43	so) Site Dev Costs	velopment \$4,913,439	\$0	0\$	0\$	\$0	0\$	0\$	0\$	\$0
Transfer Ma	terial to Disp Costs	Transfer Material to Disposal Site (Joso) Costs \$1,939,360 \$1	osal Site (Joso) \$1,939,360 \$1,939,360	\$1,939,360	\$1,939,360	\$1,939,360	\$1,939,360	\$1,939,360	\$1,939,360	\$1,939,360
300,000 cy Mechanical ∣	/ @ CHIE Dredging, R	300,000 cy @ CHIEF TIMOTHY Mechanical Dredging, River to Transfer Site (Chief Timothy)	ier Site (Chief	Timothy)	Ş	Ş	ç	Ç	Ç	Ş
Transfer (Ch	lief Timothy	Transfer (Chief Timothy) Site Development		9 (9 6	9 (9 (P	9 (9
Transfer Ma	Costs terial to Dis	Costs \$0 Transfer Material to Disposal Site (Page Creek)		\$0 om Transfer S	50 from Transfer Site (Chief Timothy)	os *0	0\$	0	0\$	20
Develop Pag	Costs	Costs Develop Page Creek Upland Disposal Site		\$0	\$0	0\$	\$0	\$0	\$0	\$0
	Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		0\$	0\$	\$0	0\$	\$0	\$0	\$0	\$0	\$0
Construction Subtotal O,M,R,R,R Subtotal	Subtotal ubtotal	\$4,913,439 \$4,823,954	\$0 \$4,823,954	\$0 \$4,823,954	\$0 \$4,823,954	\$0 \$4,823,954	\$0 \$4,823,954	\$0 \$4,823,954	\$0 \$4,823,954	\$0 \$4,823,954
	•	0\$	\$0	\$0	\$0	\$0	\$	\$0	\$0	\$0
Totals	\$0.00	\$9,737,393	\$4,823,954	\$4,823,954	\$4,823,954	\$4,823,954	\$4,823,954	\$4,823,954	\$4,823,954	\$4,823,954
	Years	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09

FY12
\$2,884,594 \$2,884,594 \$2,884,594
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FY12 FY13

FY21	1 FY22	FY23	3 FY24	FY25	5 FY26	6 FY27	FY28	FY29	FY30	FY31	FY32
0\$	0\$ 0	0\$	0\$ 0	0\$ 0	0\$ 0	0\$ 0	0\$	0\$	0\$	\$0	\$0
0\$	0\$ 0	0\$	0\$	0\$ (0\$ 0	0 \$0	\$0	0\$	0\$		
0\$	\$0	\$	0\$	\$0	0\$ 0	0\$ 0	\$	\$0	\$0		
\$1,681,357	\$1,681,357 \$1,681,357 \$1,681,357 \$1,681,357	\$1,681,357	\$1,681,357		7 \$1,681,357	\$1,681,357 \$1,681,357 \$1,681,357		\$1,681,357 \$1,681,357 \$1,681,357	\$1,681,357	\$1,681,357	\$1,681,357
\$4,149,074							\$863,181				
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\$4,149,074 \$1,681,357	\$4,149,074 \$0 \$0 \$1,681,357 \$1,681,357	\$0 \$1,681,357	\$1,681,3	\$0 \$1,681,357	\$0 \$0 7 \$1,681,357	\$752,919 \$1,681,357	\$0 \$863,181 \$3,616,091	\$0 \$0 \$3,616,091	\$0 \$0 \$3,616,091 \$3,616,091	\$0 \$0 \$3.616.091	\$0 \$0
\$0	\$0	\$0	\$0	\$0	\$0	\$	0	Ç			
\$5,830,431	\$5,830,431 \$1,681,357 \$1,681,357 \$1,681,357	\$1,681,357	\$1,681,357	1	\$1,681,357 \$1,681,357		\$4,479,2			\$3,616,091	\$3,616,091
FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32

FY44	\$0	\$0	\$0	\$1,681,357	\$1,934,734 \$1,934,734 \$1,934,734 \$1,934,734	\$0	\$0 \$0 \$3,616,091	\$0	\$3,616,091 \$3,616,091 \$3,616,091	FY44
FY43	\$0	0\$	\$0	\$1,681,357	\$1,934,734	0\$	\$0 \$0 \$3,616,091	\$0	\$3,616,091	FY43
FY42	\$0	\$0	\$0	\$1,681,357	\$1,934,734	0\$	\$0 \$0 \$3,616,091	\$0	\$3,616,091	FY42
FY41	\$0	\$0	\$0	\$1,681,357 \$1,681,357 \$1,681,357 \$1,681,357 \$1,681,357 \$1,681,357	\$1,934,734	0\$	\$0 \$0 \$3,616,091	\$0	\$3,616,091 \$3,616,091	FY41
FY40	\$0	\$0	\$	\$1,681,357	\$1,934,734 \$1,934,734 \$1,934,734	\$	\$0 \$0 \$3,616,091 \$3,616,091	\$0	\$3,616,091	FY40
FY39	\$0	0\$	\$0	\$1,681,357	\$1,934,734	\$		\$0	\$3,616,091 \$3,616,091	FY39
FY38	\$0	0\$	\$0	\$1,681,357	\$1,934,734	\$	\$0 \$0 \$3,616,091	\$0		FY38
FY37	\$0	\$0	0\$	\$1,681,357	\$1,934,734	\$0	\$0 \$0 \$3,616,091	\$0	\$3,616,091	FY37
FY36	\$0	\$0	0\$	\$1,681,357	\$1,934,734	0\$	\$0 \$0 \$3,616,091	\$0	\$3,616,091 \$3,616,091 \$3,616,091	FY36
FY35	\$0	\$0	\$0	\$1,681,357	\$1,934,734	0\$	\$0 \$0 \$3,616,091	\$0	\$3,616,091	FY35
FY34	\$0	\$0	\$0	\$1,681,357 \$1,681,357 \$1,681,357 \$1,681,357	\$1,934,734 \$1,934,734 \$1,934,734 \$1,934,734	0\$	\$0 \$0 \$0 \$0 \$0 \$0 \$3,616,091 \$3,616,091 \$3,616,091	\$0	\$3,616,091	FY34
FY33	\$0	\$0	\$0	\$1,681,357	\$1,934,734	0\$	\$0 \$0 \$3,616,091	\$0	\$3,616,091	FY33

FY56	\$0	\$0	\$0	\$1,681,357	\$1,934,734	\$0	\$0 \$0 \$3,616,091	\$3,616,091	FY56
FY55	\$0	\$0	\$0	\$1,681,357 \$	51,934,734 \$	80	\$0 \$0 \$3,616,091 \$	11	FY55
FY54	\$0	0\$	\$0	\$1,681,357	\$1,934,734 \$1,934,734 \$1,934,734 \$1,934,734	\$0	\$0 \$0 \$3,616,091	11	FY54
FY53	\$0	\$0	\$0	\$1,681,357 \$1,681,357 \$1,681,357	\$1,934,734	\$0	\$0 \$0 \$3,616,091	41	FY53
FY52	0\$	\$0	\$0	\$1,681,357	\$1,934,734	0 \$	\$0 \$0 \$3,616,091	11	FY52
FY51	0\$	\$0	\$0		\$1,934,734 \$1,934,734 \$1,934,734	\$0	\$0 \$0 \$3,616,091	\$3,616,091	FY51
FY50	0\$	\$0	\$0	\$1,681,357 \$1,681,357 \$1,681,357	\$1,934,734	\$0	\$0 \$0 \$3,616,091	\$3,616,091	FY50
FY49	\$0	\$0	\$0	\$1,681,357	\$1,934,734	\$0	\$0 \$0 \$3,616,091	\$3,616,0	FY49
FY48	\$0	0\$	\$0	\$1,681,357	\$1,934,734	0\$	\$0 \$0 \$3,616,091	\$3,616,0	FY48
FY47	\$0	0\$	\$0	\$1,681,357	\$1,934,734	\$	\$0 \$0 \$3,616,091	\$3,616,0	FY47
FY46	\$0	\$0	\$0	\$1,681,357 \$1,681,357 \$1,681,357 \$1,681,357	\$1,934,734 \$1,934,734 \$1,934,734 \$1,934,734	0\$	\$0 \$0 \$0 \$0 \$0 \$0 \$3,616,091 \$3,616,091 \$3,616,091	\$3,616,091	FY46
FY45	0\$	0\$	0\$	\$1,681,357	\$1,934,734	0\$	\$0 \$0 \$3,616,091	\$3,616,091	FY45

FY68	0\$	0\$	\$0	\$1,681,357	\$1,934,734	\$0	\$0 \$0 \$3,616,091	\$0	\$3,616,091	FY68
FY67	0\$	0\$	\$0	\$1,681,357 \$	\$1,934,734 \$	\$0	\$0 \$0 \$3,616,091 \$	\$0	\$3,616,091	FY67
FY66	\$0	\$0	\$0	\$1,681,357 \$1,681,357 \$1,681,357 \$1,681,357 \$1,681,357 \$1,681,357	\$1,934,734 \$1,934,734 \$1,934,734 \$1,934,734 \$1,934,734 \$1,934,734	\$0	\$0 \$0 \$3,616,091	\$0		FY66
FY65	0\$	\$0	\$0	\$1,681,357	\$1,934,734	\$	\$0 \$0 \$3,616,091	\$0	\$3,616,091 \$3,616,091 \$3,616,091 \$3,616,091	FY65
FY64	\$0	\$0	\$0	\$1,681,357	\$1,934,734	\$0	\$0 \$0 \$3,616,091	\$0	\$3,616,091	FY64
FY63	\$0	\$0	\$0	\$1,681,357	\$1,934,734	\$0	\$0 \$0 \$3,616,091	\$0	\$3,616,091	FY63
FY62	\$0	\$0	\$0		\$1,934,734	\$0	\$0 \$0 \$3,616,091	\$0	\$3,616,091	FY62
FY61	\$0	\$0	\$0	i \$1,681,357	\$1,934,734	\$0	\$0 \$0 \$3,616,091	\$0	\$3,616,091	FY61
FY60	\$0	0\$	0\$	\$1,681,357	\$1,934,734	\$0	\$0 \$0 \$3,616,091	\$0	\$3,616,091	FY60
FY59	\$0	\$0	\$0	\$1,681,357	\$1,934,734	\$0	\$0 \$0 \$3,616,091	\$0	\$3,616,091	FY59
FY58	0\$	\$0	\$0	\$1,681,357 \$1,681,357 \$1,681,357 \$1,681,357	\$1,934,734 \$1,934,734 \$1,934,734 \$1,934,734	\$0	\$0 \$0 \$0 \$0 \$0 \$0 \$3,616,091 \$3,616,091	\$0	\$3,616,091 \$3,616,091 \$3,616,091 \$3,616,091	FY58
FY57	0\$	\$0	80	\$1,681,357	\$1,934,734	\$0	\$0 \$0 \$3,616,091	\$0	\$3,616,091	FY57

Subtotal 74 Years	0\$	\$57,691,880	\$4,913,439	\$38,787,200	\$90,793,278	\$5,012,255	\$90,932,498	\$752,919		\$0 610 678 612	₩	\$0	\$288,883,469	74 Years
FY74		\$0	\$0	\$0	\$1,681,357		\$1,934,734	0\$	€	9 4	\$3,616,091	\$0	\$3,616,091	FY74
FY73		\$0	\$0	\$0	\$1,681,357		\$1,934,734	\$0	(O# #	\$3,616,091	\$0	\$3,616,091 \$3,616,091	FY73
FY72		\$0	\$0	\$0	\$1,681,357		\$1,934,734	\$0	É	0 6	\$3,616,091	\$0	\$3,616,091	FY72
FY71		\$0	\$0	0\$	\$1,681,357		\$1,934,734 \$1,934,734 \$1,934,734	\$0	É	000	\$3,616,091	\$0	\$3,616,091	FY71
FY70		\$0	\$0	\$0	\$1,681,357		\$1,934,734	\$0	Č	9		\$0	\$3,616,091	FY70
FY69		0\$	\$0	\$0	\$1,681,357		\$1,934,734 \$1,934,734	\$0	•	O# #		\$0	\$3,616,091	FY69

Upland 3.a.b

Txi-Service Automated Cost Engineering System (TRACES)
PROJECT DMMS3T: Dredging 3hT CuY Confl.Upland#29 - DMMS Dredging
PLANNING ESTIMATE - 300,000 CY OF DREDGE MAT

TIME 11:50:34

TITLE PAGE

Dredging 3hT CuY Confl.Upland#29 DMMS Dredging of Snake & Clearwater Rivers with Upland Disposal

Designed By: Walla Walla District COE Estimated By: R. Hynek and J. Davin

Prepared By: Cost Engineering Branch Kim Callan, Chief

05/28/99 05/01/99 60 Days Preparation Date: Effective Date of Pricing: Est Construction Time:

7.90%

Sales Tax:

M C A C E S F O R W I N D O W S Software Copyright (°) 1985-1998 by Building Systems Design, Inc. Release 1.2c

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

LABOR ID: NAT99A EQUIP ID: NAT97C

05/01/99 Mon 14 Aug 2000 Eff. Date 05/01/ PROJECT NOTES

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMS3T: Dredging 3hT CuY Confl.Upland#129 - DMMS Dredging
PLANNING ESTIMATE - 300,000 CY OF DREDGE MAT

TIME 11:50:34

TITLE PAGE

Project Description:

The Snake River deedging areas are assumed to extend from the vicinity of Siloct Island near Snake River Hile 131 upstream to the State Highway 12 bridge upstream of the confluence of the Snake and Cleavater Rivers, located to extend from the Snake River Confluence upstream to the Port of Lewiston, from Clearvater River dredging areas are assumed from Clearvater River Mile 0.00 to Clearvater River Mile 1.66.

All material assumed to be disposed of unilizing a Disposal Area at Joso near river mile 56. The Disposal Area is assumed adequate to contain all materials dredged.

Basis of Design:

ilanning level estimate produced utilizing MICRO Computer Aided Cost Estimating Program (MCACES) and the Cost Engineering Dredge Estimating Preogram (CEDEP)

Overtime:

operation. Work shall be conducted on a 24 hr/day, 3-8 hour shifts/day, 7 days/week, considering 4 holidays. Overtime is anticipated. The Government Estimate is based

Construction Windows:

Dredging operations will begin on 15 December, and shall not continue after 28 Feb, in any given year, due to the fish window requirements.

Sub Contracting Plan:

No Sub Contracting considered all work to be performed by Prime Contractor.

Site Access:

It is assumed all Disposal Transfer Sites & the In-water Disposal sites are accessible without further dredging requirements.

Construction Methodology:

Common dredging methods using 15cy clamshell dredges, with the use of scows for in-water disposal. Construction of the Disposal Area will occur during the first year. The dredging material will be offlaoded from the barges on to the Disposal Area.

Conditions:

This work will take place during winter months. The anticipated types of soil to be incountered are sand/silts/gravels/cobbles. The use of Clamshells and Scows has been considered, due to the anticipated existence of silt type materials within the Confluence areas. Considerations for delays due to traffic, and coordination efforts have been accounted for within the effective working time. No adverse weather conditions other than normal winter work weather has been assumed.

Equipment/Labor Availability & Distance Traveled:

Assume labor will be available within the project location. Equipment whobitzation will be from the Wouth of the Columbia River to the Confluence of the Snake and Clearwater Rivers, approximetely 463 River Miles to allow contractors from Portland & Seattle to compete. All equipment is considered owned - no rental equipment considered. All equipment other than dredging

Currency in DOLLARS

EQUIP ID: NAT97C LABOR ID: NAT99A

UPB ID: UP99EA CREW ID: NAT99A

Mon 14 Aug 2000 Eff. Date 05/01/99 PROJECT NOTES

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DANS3T: Dredging 3hT CuY Confl.Upland#29 - DANS Dredging
PLANNING ESTIMATE - 300,000 CY OF DREDGE MAT

TIME 11:50:34

TITLE PAGE

plant rates were computed based on the EP 1110-1-8. All equipment other than dredging plant mob and demob costs computed as 5% of the direct costs.

Environmental Concerns:

Turbidity monitoring will be required during the dredging operation. Sieve analysis testing for course grained and fine grained materials will be required for determining location of disposal area to use. No overflow will be allowed.

Contingencies:

Total costs include Overhead and Profit. Escalation and contingencies are not included.

Effective dates for:
Labor: General Decision Number WA990001, Modification #1 dated 3/1/99.
Equipment: Cost Engineering Dredge Estimating Programs (CEDEP) and
Historical Dredging Equipment information.

LABOR ID: NAT99A

Currency in DOLLARS

UPB ID: UP99EA

CREW ID: NAT99A

EQUIP ID: NAT97C

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DWASTY: Dredding 3HT CUV CORIT. Upland-819 - DMMS Dredging
PRIANNING ESTIMANE - 300,000 CV OF DREDGE NAT
** PROJECT INDIRECT SUMMARY - CSI ITEM **

SUMMARY PAGE

8.56 4300.67 6.97 4300.67 6.97 6.30 9.62 6.31 6.31 TOTAL COST UNIT COST 316,551 316561.22 316,561 316561.22 11271.91 1,889,425 1,894,273 45,088 8,601 13,942 8,601 13,942 2,568,032 1,894,273 2,884,594 DOND 3,419 20,404 22,140 3,419 31,151 27,732 22,140 101 163 101 163 22,667 : 0 Misc Ta 0 0 PROF 25, 195 204,392 150,381 54,011 170,194 25, 195 229,587 1,253 1,253 773 1,253 174,245 170,194 182,351 HOOH 81,840 828 1,342 828 1,342 4,340 13,712 111,234 182,351 13,712 124,945 186,691 202,243 198,207 FOOH 24,931 24,931 148,800 227,174 900 1,459 900 1,459 4,718 198,207 202,925 2,271,736 249,305 1,488,000 QUANTITY UOM TOTAL DIRECT 249,305 2,022,431 1,321,381 1,321,381 6,000 9,726 6,000 9,726 31,452 1,352,833 2.00 AC 2000.00 BCY 2.00 AC 2000.00 BCY 01.12.06.02.001-_02AA Load, Haul, Dump & Compact D-Mat 300000.00 BCY 1.00 JB 1.00 JB 300000.00 CY TOTAL DREDGE, HAUL & OFF-LOAD MATERIAL 300000.00 CY TOTAL MECH DREDGING, RIVER TO TRANSFER 300000.00 CY 3000000.00 CY 4.00 AC 300000.00 CY Transfer Site, Hydro Seeding Load, Haul, Dump &Compact T-Soil Disposal Site, Hydro Seeding Load, Haul, Dump &Compact T-Soil 01.12.06.01.001-_01AA Mob. & Demob. Excavation Dredges Dredging & Haul Mat to Transfer Off Loading Barge, W/Clamshell TOTAL RESTORATION-TRANSFER/DISPL SITES TOTAL TRANSFER MATERIAL TO DISPOSAL DREDGE, HAUL & OFF-LOAD MATERIAL 01.12.06.02.002- RESTORATION-TRANSFER/DISPL SITES TOTAL HAUL MAT. TO DISPOSAL SITE RIVER SIDE DIKE & WE BARGE SLIP TOTAL MOB. & DEMOB. AND PREWORK 01.12.06.01 MECH DREDGING, RIVER TO TRANSFER 01.12.06.03 DISPOSAL/TRANSFER DEVELOMENT #29 01.12.06.02.001- HAUL MAT. TO DISPOSAL SITE MOB. & DEMOB. AND PREWORK TRANSFER MATERIAL TO DISPOSAL 01.12 NAVIGATION, PORTS & HARBORS 01.12.06 DREDGING RIVERS 01 SNAKE RIVER DMMS 99 01.12.06.02.002-_02AA 101.12.06.02.002-_02BA 101.12.06.02.002-_02KA 101.12.06.02.002-_02KA 101.12.06.02.002-_02KB 1 01.12.06.01.002-_02BB 01.12.06.01.002-_02EB 01.12.06.01.001-01.12.06.03.001-01.12.06.02

LABOR ID: NAT99A EQUIP 12: NAT97C

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMSJT: Dredging 3hT CuY Confl.Uplandf29 - DMMS Dredging
| PLANNING ESTIMATE - 300,000 CY OF DREDGE MAT ** PROJECT INDIRECT SUMMARY - CSI ITEM **

SUMMARY PAGE 2

		QUANTITY UOM	TOTAL DIRECT	1003	HOOH	PROF MISC	SC TA	BOND	TOTAL COST UNIT COST	N
01.12.06.03.00102AA	RS Berm, Earthern Fill, L.H.D.&C	5000.00 BCY	24.600	1 690	1 414	600	c	100		
01.12.06.03.00102AB			1.354.884	203,233	77.906	141 152		16 908	32,610	6.52
01.12.06.03.00102DB			15,096	2.264	868	1.595		180	20.062	23.60
01.12.06.03.00102KB		38890.00 CY	46,796	7,019	2,691	4.944	,	48.0	52,03	
01.12.06.03.00103AB		525.00 CY	113,039	16,956	6,500	11,943	0	1,411	149,849	285.43
TOTA	TOTAL RIVER SIDE DIKE & WE BARGE SLIP	1750.00 LF	1,554,415	233,162	89,379	164,234	0	19,398	2,060,587	1177.48
01.12.06.03.002- RIVI	RIVER SIDE DIKE & EE BARGE SLIP									
01.12.06.03.00202AA	RS Berm, Earthern Fill, L, H, D, &C	5000.00 BCY	24,600	3.690	1.414	2.599	c	107	32 610	
01.12.06.03.00202AB			1,354,884	203,233	77,906	143,152	0	16,908	1,796,082	25.66
01.12.06.03.00202KB		38890.00 CX	15,096	2,264	968	1,595	0 6	188	20,012	
01.12.06.03.00203AB			113,039	16,956	6,500	11,943	0	1,411	149,849	285.43
TOTA	TOTAL RIVER SIDE DIKE & EE BARGE SLIP	1750.00 LF	1,554,415	233,162	89,379	164,234	0	19,398	2,060,587	1177.48
01.12.06.03.003- TRAN	TRANSFER SITE (WEST END) DIKES									
01.12.06.03.003A02A		200.00 CY	508	7.6	29	54	0	9	674	
01.12.06.03.003- A028		820.00 SY	2,444	367	141	258	0	31	3,240	
01.12.06.03.003A02T	TRANS Containment Berm, Seeding		989	103	39	73	0 0	ο;	910	
01.12.06.03.003B02A			1,068	160	61	113	o e	- 4	4,640	4639.72
01.12.06.03.003C02A			585	88	34	62	0	,	775	
01.12.06.03.003D03A	TRANS Overflow Strs between Pond	2000.00 LF 2.00 EA	16,308	2,446	938	1,723	00	204	21,619	10.81
TOTA	TOTAL TRANSFER SITE (WEST END) DIKES	5150.00 LF	31,349	4,702	1,803	3,312	0	391	41,558	
01.12.06.03.004- TRA	TRANSFER SITE (EAST END) DIKES									
01.12.06.03.004-A02A	TRANS Containment Berm, Dike Exc	200.00 CY	508	16	29	54	0	9	674	
01.12.06.03.004- A020			2,444	367	141	258	0	31	3,240	
01.12.06.03.004- A02T		2/0.00 CY	686	103	39	73	0	6	910	
01.12.06.03.004B02A		420.00 CY	1,068	160	201	370	0 0	9 .	4,640	4639.72
01.12.06.03.004C02A			585	88	7 7	62		13	1,615	
01.12.06.03.004D02K	TRANS Fenc		16,308	2,446	938	1,723	0	204	21.619	10 21
01.12.06.03.004D03A	TRANS Overflow Strs between Pond	2.00 EA	6,249	937	359	099	0	78	8,285	4142.2
TOTA	TOTAL TRANSFER SITE (EAST END) DIKES	\$150.00 LF	31,349	4,702	1,803	3,312	0	391	41.558	

LABOR ID: NAT99A EQUIP ID: NAT97C

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

TIME 11:50:34 SUMMARY PAGE 3

	MON YTITHUO	QUANTITY UOM	QUANTITY UOM TOTAL DIRECT	FOOH	ноон	1	PROF Misc Ta	BOND	TOTAL COST UNIT COST	NIT COST
01.12.06.03.00502AA	01.12.06.03.00502AA Access Road, Clear, Grub & Shape	7500.00 LF	26,753	4,013	1,538	2,827	0	334	35,464	4.73
TOTAL	TOTAL ACCESS ROADS & HAUL ROAD	1.00 EA	26,753	4,013	1,538	2,827	0	334	35,464	35464.06
01.12.06.03.006- DISPOSAL SITE DIKES	OSAL SITE DIKES									
01.12.06.03.006A02A		6700.00 CY	17,033	2,555	979	1,800	0	213	22,579	3.37
01.12.06.03.006A02B	DISP Containment Berm, Geotextile	154000.00 SY	459,071	68,861	26,397	48,504	0	5,729	608,561	3.95
01.12.06.03.006A02S		2480.00 CY	6,305	946	363	999	0	19	8,358	3.37
01.12.06.03.006A02T		4.00 ACR	14,000	2,100	805	1,479	0	175	18,559	4639.72
01.12.06.03.006B02A	DISP Settling Pond, Dike	840.00 CY	2,135	320	123	226	0	27	2,831	3.37
01.12.06.03.006C02A		460.00 CY	1,169	175	67	124	0	15	1,550	3.37
01.12.06.03.006D03A	DISP Overflow Strs between Ponds	2.00 EA	8,484	1,273	888	968	0	106	11,247	5623.64
TOTAL	TOTAL DISPOSAL SITE DIKES	7000.00 LF	508,198	ı	29,221	53,694	0	6,342	673,685	96.24
TOTAL	TOTAL DISPOSAL/TRANSFER DEVELOMENT #29 300000.00 CY	300000.00 CY	3,706,478 555,972 213,122 391,613	555,972	213, 122	391,613	0	46.254	4.913.439	16.38

Currency in DOLLARS

EQUIP ID: NAT97C LABOR ID: NAT99A

CREW ID: NAT99A UPB ID: UP99EA

Mon 14 Aug 2000 Eff. Date 05/01/99 ERROR REPORT

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DHMS3T: Dredging 3hT CuY Confl.Uplandf29 - DHMS Dredging
PLANNING ESTIMATE - 300,000 CY OF DREDGE MAT

TIME 11:50:34

ERROR PAGE

No errors detected ...

END OF ERROR REPORT

EQUIP ID: NAT97C LABOR ID: NAT99A

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

Mon 14 Aug 2000 Eff. Date 05/01/99 TABLE OF CONTENTS

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMS3T: Dredging 3hT CuY Confl.Upland#29 - DMMS Dredging
PLANMING ESTIMATE - 300,000 CY OF DREDGE MAT

SUMMARY PAGE

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SUMMARY REPORTS

No Detailed Estimate...

No Backup Reports...

* * * END TABLE OF CONTENTS

Upland 3.c.d.e.f

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMU03: Dredging 3hT CuY Confl. Upland D - DMMS Dredging
PLANNING ESTIMATE - 300,000 CY DREDGE MATERIAL

TIME 11:44:56

TITLE PAGE

Dredging 3hT CuY Confl. Upland D DMMS Dredging of Snake & Clearwater Rivers with Upland Disposal

Designed By: Walla Walla District COE Estimated By: R. Hynek and J. Davin

Cost Engineering Branch Kim Callan, Chief Prepared By:

05/28/99 05/01/99 60 Days Preparation Date: Effective Date of Pricing: Est Construction Time:

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Currency in DOLLARS

EQUIP ID: NAT97C

LABOR ID: NAT99A

UPB ID: UP99EA CREW ID: NAT99A TITLE PAGE

Project Description: The Snake River dredging areas are assumed to extend from the vicinity of Silcott Island near Snake River Mile 131 upstream to the State Highway 12 bridge upstream of the confluence of the Snake and Clearwater Rivers, located near Snake River Mile 19.5. The Clearwater River dredging areas are assumed to extend from the Snake River confluence upstream to the Port of Lewiston, from Clearwater River Mile 0.00 to Clearwater River Mile 1.66. All material assumed to be disposed of utilizing a Transfer Station near Snake River Mile 131, located near the Much of Abyowa Creek where the material will be temporarily stored. The material will be rehandled from the Transfer Station to the final Disposal Area at the Page Creek - East Side Site. The disposal site is assumed adequate to contain all materials dredged. Basis of Design: Planning level estimate produced utilizing the MICRO Computer Aided Cost Estimating System (MCACES) and Cost Engineering Dredge Estimating Program (CEDEP) Overtime: Overtime is anticipated. The Government Estimate is based on a 24 hour operation. Work shall be conducted on a 24 hr/day, 3-8 hour shifts/day, 7 days/week, considering 4 holidays.

Construction Windows: Dredging operations will begin on 15 December, and shall not continue after 28 feb, in any given year, due to the fish window requirements. Construction of the Transfer Station and the Disposal Area will occur during year the first 7 years.

B-157

Sub Contracting Plan: No Sub Contracting considered all work to be performed

Site Access: It is assumed all Disposal Transfer Sites & the In-water Disposal sites are accessible without further dredging requirements.

The Disposal dredges, with the use of scows for in-water disposal. The Transfer Station will be constructed during the first year. The first seven years dredging material will be used for developement of the Transfer Station. The Disposal Area will be constructed during year seven. After year seven the dredging material will be offloaded from the barges on to the transfer site where the material will be allowed to dewater. The material may be moved from the Transfer Station to the Disposal Area throughout the remainder of the year. Common dredging methods using 15cy clamshell Construction Methodology:

Conditions: This work will take place during winter months. The anticipated types of soil to be incountered are sand/silts/gravels/cobbles. The use of clamshells and Scows has been considered, due to the anticipated existence of silt type materials within the Confluence areas. Considerations for delays due to traffic, and coordination efforts have been accounted for within the effective working time. No adverse weather conditions other than normal winter work weather has been assumed. Equipment/Labor Availability & Distance Traveled: Assume labor will be available within the project location. Equipment Mobilization will be from the Mouth of the Columbia River to the Confluence of the Snake and

Currency in DOLLARS

UPB ID: UP99EA

CREW ID: NAT99A

EQUIP ID: NAT97C LABOR ID: NAT99A

Mon 14 Aug 2000 Eff. Date 05/01/99 PROJECT NOTES

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMU03: Dredging 3hT CuY Confl. Upland D - DMMS Dredging
PLANNING ESTIMATE - 300,000 CY DREDGE MATERIAL

TIME 11:44:56

TITLE PAGE

Clearwater Rivers, approximately 463 River Miles to allow contractors from Portland & Seattle to compete. All equipment is considered owned - no rental equipment considered All equipment other than dredging plant rates were computed based on the EP 1110-1-8. All equipment other than dredging plant mob and demob costs computed as 5% of direct costs.

Environmental Concerns: Turbidity monitoring will be required during the diredging operation. Sieve analysis resting for course grained and fine grained materials will be required for determining location of disposal area to use. No overflow will be allowed.

Contingencies: Total costs include Overhead and Profit. Escalation and contingencies are not included.

Labor: General Decision Number WA990001, Modification #1 dated 3/1/99! Equipment: Cost Engineering Dredge Estimating Programs (CEDEP) and Historical Dredging Equipment information. Effective dates for:

> EQUIP ID: NAT97C LABOR ID: NAT99A

Currency in DOLLARS

UPB ID: UP99EA CREW ID: NAT99A

Tri-Service Automated Cost Engineering System (TRACES) PROJECT DAMUO3: Dredging Mr CuY Confl. Upland D - DAMS Dredging PLANNING ESTHARE - 300,000 CY DREDGE MATERIAL ** PROJECT INDIRECT SUMMARY - BID ITEM **

TIME 11:44:56

SUMMARY PAGE

01 SNAKE RIVER DAMS 99	MHS 99									
01.12 NAVIGATION, PORTS & HAR	1, PORTS & HARBORS									
01.12.06 DREDGING RIVERS	JG RIVERS									
01.12.06.01 MECH DREDGING, RIV	1 DREDGING, RIVER TO TRANSFER									
01.12.06.01.001-	MOB, & DEMOB. AND PREWORK 1.00 DREDGE, HAUL & OFF-LOAD MATERIAL 300000.00	1.00 JB 300000.00 CY	249,956 1,072,625	24,996	13,748	25,261 108,402	00	3,801 16,311	317,761 317761.43 1,363,596 4.55	17761.43
TOTAL	TOTAL MECH DREDGING, RIVER TO TRANSFER 300000.00	300000.00 CY	1, 322, 581	132,259	72,742	133, 663.	0	20,112	1,681,357	5.60
01.12.06.02 TRAN	TRANSFER MATERIAL TO DISPOSAL									
01.12.06.02.001-	HAUL MAT: TO DISPOSAL SITE RESTORATION OF SITES	300000.00 CY	1,451,712	217,757	83,473	135,853	00	22,345	1,911,141 23,593	6.37 5898.33
TOTAL	TOTAL TRANSFER MATERIAL TO DISPOSAL	300000.00 CY	1,469,634	220,445	84,504	137,530	0	22,621	1,934,734	6.45
01.12.06.03 DISPOSAL/TRANSFER	POSAL/TRANSFER DEV, CHIEF TIM									
01.12.06.03.001-	TRANS, RIVER DIKE & SP BARGE SLIP	2600.00	1,389,624	208,444	79,903	146,822	0	17,350	1,842,144	708.52
01.12.06.03.003-	TRANSFER DIRES (LAND SIDE) TRANS. SETTLEMENTATION PONDS. 4 EA	1.00 SF	231.687	34.753	13,322	24.479	0	2,893	307,134,3	307134.05
01.12.06.03.004-		2100.00	1,072,414	160,862	61,664	113,307	0	13, 389		676.97
01.12.06.03.005-		1050.00 LF	223,526	33,529	12,853	23,617	0 (2,791	296,316	282.21
01.12.06.03.007~	UPLAND DISPOSAL HAUL KOAD UPLAND DISPOSAL SITE DEVELOPMENT	Z000000 CY	50,513	7,577	2,905	5,337	0	3,6/0	189, b40 66, 963	0.03
TOTAL	TOTAL DISPOSAL/TRANSFER DEV, CHIEF TIM 300000.00 CY	300000.00 CY	3,697,826	554,674	212,625	390,698	0	46,169	4,901,992	16.34
01.12.06.99 DISPOSAL/TRANSFER	POSAL/TRANSFER CAP, CHIEF TIM									
01.12.06.99.001-	01.12.06.99.001- RCC COMPACTED CONCRETE CAP	10111.00 CY	648,186	97,228	37,271	68,485	0	12,012	863,181	85.37
TOTAL	TOTAL DISPOSAL/TRANSFER CAP, CHIEF TIM 272997.00	1 272997.00 SF	648,186	97,228	37,271	68,485	0	12,012	863, 181	3.16
TOTAL	TOTAL DREDGING RIVERS	300000.00 CY	7,138,226	1,004,605	407,142	730,377	0	100,914	9,381,264	31.27
TOTAL	TOTAL NAVIGATION, PORTS & HARBORS		7,138,226	1,004,605	407,142	730,377	0	100,914	9,381,264	
TOTA	TOTAL SNAKE RIVER DMMS 99		7,138,226	1,004,605	407,142	730,377	0	100,914	9,381,264	
TOTAL	TOTAL Dredging 3hT CuY Confl. Upland D		7,138,226 1,004,605		407,142	730,377	0	100,914	9.381.264	

EQUIP ID: NAT97C LABOR ID: NAT99A

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DHNU03: Dredging 3hT CuY Confl. Upland D - DHMS Dredging
PLANNING ESTIMATE - 300,000 CY DREDGE MATERIAL

TIME 11:44:56

ERROR PAGE

No errors detected...

Mon 14 Aug 2000 Eff. Date 05/01/99 ERROR REPORT

* * * END OF ERROR REPORT * * *

EQUIP ID: NAT97C LABOR ID: NAT99A

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

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Aug	Date	ت 40
14	200	
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Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMUD3: Dredging 3hT CuY Confl. Upland D - DMNS Dredging
PLANNING ESTHATE - 300,000 CY DREDGE MATERIAL

TIME 11:44:56

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Y DREDGE MATERIAL

SUMMARY PAGE

PROJECT INDIRECT SUMMARY - BID ITEM.......

SUMMARY REPORTS

No Detailed Estimate...

No Backup Reports...

* * * END TABLE OF CONTENTS * * *

Upland 4 Proration

PRORA	ING OF CO	'PRORATING OF COST Lower Granite Pool 41,500 CY on 5 year intervals the first 10 years and 10 year intervals ther	ranite Pool	41,500 CY	on 5 yea	r intervals th	e first 10 ye	ears and 10	year inter	vals ther
	Years	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
41,500 cv	,500 cy @ Joso									
Mechanica	I Dredging, Ri	Mechanical Dredging, River to Transfer Site (Joso)	Site (Joso)							
	Costs	\$0	\$0	\$0	\$0	\$673,429	\$0	\$0	\$0	\$0
Disposal (.	Disposal (Joso) Site Development	elopment								
•	Costs	\$0	\$0	\$0	\$0	\$2,198,955	\$0	\$0	\$0	\$0
Transfer M	aterial to Disp	Transfer Material to Disposal Site (Joso)	<u>(c</u>							
	Costs	\$0	0\$	0	\$0	\$326,050	\$0	\$0	\$0	\$0
		\$0	\$0	0\$	\$0	\$0	\$0	\$0	\$0	\$0
		\$0	0\$	\$0	\$0	\$0	0\$	\$0	\$0	\$0
				\$0	\$0	\$0	\$0	\$0	\$0	\$0
		\$0	0\$	\$0	\$0	\$0	\$0	\$0	0\$	\$0
Construction Subtotal	n Subtotal	\$0	\$0	\$0	\$0	\$2,198,955	\$0	\$0	\$0	\$0
O,M,R,R,R Subtotal	Subtotal	\$0	\$0	\$0	\$0	\$999,479	\$0	\$0	\$0	\$0
		0								
	11	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Totals	\$0.00	\$0	\$0	\$0	\$0	\$3,198,434	0\$	0\$	0\$	\$0
	Years	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09

eafter FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
\$673,429	\$0	\$0	\$0	\$	\$0	\$0	\$0	\$0	\$	\$673,429
\$0	\$0	\$0	0\$	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$326,050	\$0	\$0	\$0	\$0	0\$	0\$	\$0	\$0	\$0	\$326,050
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FY31 FY32	0\$ 0\$	0\$ 0\$	0\$ 0\$		0\$ 0\$	0\$ 0\$			\$0 \$0	\$0		EV24
FY30	\$673,429	\$0	\$326,050		\$0	\$0	O \$	\$0	\$999,479	\$0	\$999,479	EV30
FY29	0\$	\$0	\$0		\$0	\$0	\$0	0\$	\$0	\$0	\$0	FV20
FY28	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	FV2R
FY27	\$0	\$0	0\$		\$0	0\$	0\$	\$0	\$0	\$0	\$0	FV27
FY26	0\$	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	FY26
FY25	\$	\$0	\$0			\$0	0\$	\$0	\$0	\$0	\$0	FY25
FY24	\$0	\$0	0\$		\$0	\$0	\$0	\$0	\$0	\$0	\$0	FY24
FY23 FY24	\$0	\$0	\$0		\$0	0\$	\$	\$0	\$0	\$0	\$0	FY23
FY22	\$0	\$0	\$0		\$0	0\$	\$	\$0	\$0	\$0	\$0	FY22
FY21	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	FY21

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FY38	\$0	\$0	\$0		0\$	0\$ 0\$	0 0 0\$	0 0 0\$	0\$ 0\$ 0\$	0\$ 0\$ 0\$ 0\$	0\$ 0\$ 0\$
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FY46 FY47	FY48	FY49	FY50	FY51	FY52	FY53	FY54	FY55	FY56
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FY47 FY48	_	FY49	FY50	FY51	FY52	FY53	FY54	FY55	

FY57	FY58	FY59	FY60	FY61	FY62	FY63	FY64	FY65	FY66	FY67	FY68
\$0	\$0	\$0	\$673,429	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
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FY57	FY58	FY59	FY60	FY61	FY62	FY63	FY64	FY65	FY66	FY67	FY68

Subtotal 74 Years	0\$	\$5,387,432	\$2,198,955	\$2,608,400	0\$	\$0	\$0	\$0	\$2,198,955	\$7,995,832	0\$	\$10,194,787	74 Years
FY74		\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	FY74
FY73		\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	0\$	FY73
FY72		\$0	\$0	\$0		\$0	\$0	\$	\$0	\$0	\$0	0\$	FY72
FY71		\$0	\$0	\$0		\$0	0\$	\$0	0\$	\$0	\$0	\$0	FY71
FY70		\$673,429	0\$	\$326,050		\$0	\$0	\$0	\$0	\$999,479	\$0	\$999,479	FY70
FY69		\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	0\$	FY69

Upland 4 a.b.c.d

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMSO5: Dredging 50T CuY Confl Upland#29 - DMMS Dredging
PLANNING ESTIMATE - 50,000 CY OF DREDGE MATERIAL

TIME 11:52:10

TITLE PAGE

Dredging 50T CuY Confl.Upland#29 DMMS Dredging of Snake & Clearwater Rivers with Upland Disposal

Designed By: Walla Walla District COE Estimated By: R. Hynek and J. Davin

Prepared By: Cost Engineering Branch Kim Callan, Chief

05/28/99 05/01/99 60 Days

Preparation Date: Effective Date of Pricing: Est Construction Time:

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Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

EQUIP ID: NAT97C LABOR ID: NAT99A

TITLE PAGE

Project Description:

The Snake River dredging areas are assumed to extend from the vicinity of Sicott Island near Snake River Mile 131 upstream to the State Highway 12 bildge upstream of the confluence of the Snake and Clearwater Rivers, located near Snake River Mile 139.5. The Clearwater River dredging areas are assumed to extend from the Snake River confluence upstream to the Port of Lewiston, thom Clearwater River Mile 16 0.0 to Clearwater River Mile 1.66.
All material assumed to be disposed of utilizing a bisposal Area at Joso near river mile 56. The Disposal Area is assumed adequate to contain all materials dredged.

Basis of Design:

Planning level estimate produced utilizing the MICRO Computer Aided Cost Estimating Program (MCACES) and the Cost Engineering Dredge Estimating Program (CEDEP)

Work shall be conducted on a 8 hr/day, 1-8 hour shift/day, 6 The Government Estimate is based on an 8 hour Overtime is anticipated. operation. days/week.

Construction Windows:

and shall not continue after Dredging operations will begin on 15 December, and shall not con 28 Feb, in any given year, due to the fish window requirements.

No Sub Contracting considered all work to be performed by Prime Contractor. Sub Contracting Plan:

It is assumed all Disposal Transfer Sites & the In-water Disposal sites are accessible without further dredging requirements.

Common dredging methods using 15cy clamshell dredges, with the use of scows for in-water disposal. Construction of the Disposal Area will occur during the first year. The dredging material will be offloaded from the barges on tot he Disposal Area. Construction Methodology:

Conditions:

within the effective working time. No adverse weather conditions other than soil to be incountered are sand/silts/gravels/cobbles. The use of Canshalls and Scows has been considered, due to the anticipated existence of silt type materials within the Confluence areas. Considerations for delays due to traffic, and coordination efforts have been accounted for The anticipated types of This work will take place during winter months. normal winter work weather has been assumed.

Equipment/Labor Availability & Distance Traveled:
Assume labor will be available within the project location. Equipment
Mobilization will be from the Mouth of the Columbia River to the Confluence
of the Snake and Clearwater Rivers, approximately 463 River Miles to allow
contractors from Portland & Seattle to compete. All equipment is considered
owned - no rental equipment condsidered. All equipment other than dredging

Currency in DOLLARS

EQUIP ID: NAT97C

UPB ID: UP99EA CREW ID: NAT99A

LABOR ID: NAT99A

Mon 14 Aug 2000 Eff. Date 05/01/99 PROJECT NOTES

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMSO5: Dredging 50T CuY Confl.upland#29 - DMMS Dredging
PLANNING ESTIMATE - 50,000 CY OF DREDGE MATERIAL

TIME 11:52:10

TITLE PAGE

plant rates were computed based on the $\rm EP~1110^{-}1^{-}8$. All equipment other than dredging plant mob and demob costs computed as 5% of direct costs.

Environmental Concerns:

Turbidity monitoring will be required during the dredging operation. Sieve analysis testing for course grained and fine grained materials will be required for determining location of disposal area to use. No overflow will be allowed.

Contingencies: Total costs include Overhead and Profit. Escalation and contingencies are not included.

Effective dates for:
Labor: General Decision Number WA990001, Modification #1 dated 3/1/99.
Equipment: Cost Engineering Dredge Estimating Programs (CEDEP) and
Historical Dredging Equipment information.

LABOR ID: NAT99A EQUIP ID: NAT97C

Currency in DOLLARS

CREW ID: NAT99A

UPB ID: UP99EA

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMSO5: Dredging SOT CUY Confl. UplandE19 - DMMS Dredging
PLANNING ESTIMATE - 50,000 CY OF DREDGE MATERIAL
** PROJECT INDIRECT SUMMARY - CSI ITEM **

TIME 11:52:10 SUMMARY PAGE

	QUANTITY UOM	TOTAL DIRECT	FOOH	ноон	PROF Misc Ta	sc Ta	BOND	TOTAL COST UNIT COST	MIT COST
								1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 8 9 5 5
01 SNAKE RIVER DMMS 99									
01.12 NAVIGATION, PORTS & HARBORS									
01.12.06 DREDGING RIVERS									
01.12.06.01 MECH DREDGING, RIVER TO TRANSFER									
01.12.06.01.001- MOB. & DEMOB. AND PREMORK									
01.12.06.01.00101AA Mob. & Demob. Excavation Dredges	1.00 JB	249,305	24,931	13,712	25, 195	0	4,784	317,926	317,926 317926.44
TOTAL MOB. & DEMOB. AND PREWORK	1.00 JB	249,305	24,931	13,712	25, 195	0	4,784	317,926	317,926 317926.44
01.12.06.01.002- DREDGE, HAUL & OFF-LOAD MATERIAL									
01.12.06.01.00202BB Dredging & Haul Mat to Transfer 01.12.06.01.00202EB Off Loading Barge, W/Clamshell	50000.00 CY 50000.00 CY	255,000	25,500	14,025	25,771 2,402	00	4,893	325, 189 30, 313	6.50
TOTAL DREDGE, HAUL & OFF-LOAD MATERIAL	50000.00 CY	278,771	27,877	15,332	28,173	0	5,349	355,502	7.11
TOTAL MECH DREDGING, RIVER TO TRANSFER	50000.00 CY	528,076	52,808	29,044	53,369	0	10,133	673,429	13.47
01.12.06.02 TRANSFER MATERIAL TO DISPOSAL									
01.12.06.02.001- HAUL MAT. TO DISPOSAL SITE									
01.12.06.02.00102AA Load, Haul, Dump & Compact D-Mat	50000.00 BCY	219,601	32,940	30,305	28,285	0	5,639	316,770	6.34
TOTAL HAUL MAT. TO DISPOSAL SITE	50000.00 CY	219, 601	32,940	30,305	28,285	0	5,639	316,770	6.34
01.12.06.02.002- RESTORATION-TRANSFER/DISPL SITES									
	0.50 AC	1,500	225	207	193	0	39	2,164	4327.43
01.12.06.02.0020286 Loads, Aau; Dump &compact F_5011 01.12.06.02.0020028	333.00 BCY 0.50 AC 333.00 BCY	1,500	258 225 258	237 207 237	221 193 221		4 U 4	2,476 2,164 2,476	7.44
TOTAL RESTORATION-TRANSFER/DISPL SITES	0.67 AC	6,433	965	888	829		165	9,280	13850.89
TOTAL TRANSFER MATERIAL TO DISPOSAL	\$0000.00 CY	226,035	33,905	31,193	29,113	0.	5,804	326,050	6.52
01.12.06.03 DISPOSAL/TRANSFER DEVELOMENT #29									
01.12.06.03.002- RIVER SIDE DIKE & EE BARGE SLIP									

LABOR ID: NAT99A

EQUIP ID: NAT97C

Currency in DOLLARS

UPB ID: UP99EA CREW ID: NAT99A

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DAMSOS: Dredejing SOT CUY CORIT! UplandE29 - DAMS Dredging
PLANNING ESTIMATE - 50,000 CY OF DREDGE MATERIAL
*** PROJECT INDIRECT SUMMARY - CSI ITEM **

TIME 11:52:10

SUMMARY PAGE

	QUANTITY UOM	TOTAL DIRECT	FOOH	ноон	PROF Misc	SC Ta	BOND	TOTAL COST UNIT	NIT COST
C. 10 CO	5000.00 BCY	24.600	3,690	1,414	2,599	0	375	32,678	6.54
of 12 Of 03 OO2, COAR RS Range Tie-off, Sheet Piling		1.354.884	203,233	77,906	143,152	0	20,656	1,799,831	25.71
RS Barne Tie-off.		15,096	2,264	868	1,595	0	230	20,054	52.77
		46,796	7,019	2,691	4,944	0	713	62, 163	1.60
		113,039	16,956	6,500	11,943	,о	1,723	150,161	286.02
TOTAL RIVER SIDE DIKE & EE BARGE SLIP	1750.00 LF	1,554,415	233,162	89,379	164,234	0	23,699	2,064,888	1179.94
01.12.06.03.004- TRANSFER SITE (EAST END) DIKES									
The Eventainment Bern Dite Events	200 00 CY	808	16	29	30	0	60	675	3.38
TRANSContai		2,444	367	141	258	0	3.7	3,247	3.96
TRANS Conta		686	103	39	73	0	10	912	3.38
TRANS Containment Berm.		3,500	525	201	370	0	53	4,649	4649.41
TRANS Settling Pond, Di	420.00 CY	1,068	160	61	113	0	16	1,418	3.38
	230.00 CY	585	88	34	62	0	6	777	3.38
		16,308	2,446	938	1,723	0	249	21,664	10.83
TRANS Overf	2.00 EA	6,249	937	359	099	0	95	8,302	4150.90
TOTAL TRANSFER SITE (EAST EMD) DIKES	5150.00 LF	31,349	4,702	1,803	3,312	0	878	41,644	8.09
01.12.06.03.005- ACCESS ROADS & HAUL ROAD									
01.12.06.03.00502AA Access Road, Clear, Grub & Shape	7500.00 LF	26,753	4,013	1,538	2,827	0	408	35,538	4.74
TOTAL ACCESS ROADS & HAUL ROAD	1.00 EA	26,753	4,013	1,538	2,827	•	408	35,538	35538.08
01.12.06.03.006- DISPOSAL SITE DIKES									
01.12.06.03.006- A02A DISP Containment Berm, Dike Exc	6700.00 CY	17,033	2,555	616	1,800	0	260	22,626	3.38
		14,000	2,100	808	1,479	0	213	18,598	4649.41
		2,135	320	123	226	0 0	33	2,837	3.38
01.12.06.03.006C02A DISP Detention Pond, Dike 01.12.06.03.006D03A DISP Overflow Strs between Ponds	2.00 EA	1, 109 8, 484	1,273	88	896	0	129	11,271	5635.37
TOTAL DISPOSAL SITE DIKES	7000.00 LF	42,822	6,423	2,462	4,524	0	653	56,885	8.13
TOTAL DISPOSAL/TRANSFER DEVELOMENT #29	50000.00 CY	1,655,339	248,301	95,182	174,897	0	25,237	2, 198, 955	43.98

EQUIP ID: NAT97C LABOR ID: NAT99A

Currency in DOLLARS

UPB ID: UP99EA

CREW ID: NAT99A

Mon 14 Aug 2000 Eff. Date 05/01/99 ERROR REPORT

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMSO5: Dredging 50T CuY Confl.UplandR29 - DMMS Dredging
PLANNING ESTIMATE - 50,000 CY OF DREDGE MATERIAL

TIME 11:52:10

ERROR PAGE

No errors detected...

. . . END OF ERROR REPORT

EQUIP ID: NAT97C LABOR ID: NAT99A

Currency in DOLLARS

UPB ID: UP99EA

CREW ID: NAT99A

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Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMSOS: Dredging SOT CuY Confl.Upland#29 - DMMS Dredging
PLANNING ESTIMATE - 50,000 CY OF DREDGE MATERIAL

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SUMMARY REPORTS

PROJECT INDIRECT SUMMARY - CSI ITEM

SUMMARY PAGE

No Detailed Estimate...

No Backup Reports...

. . END TABLE OF CONTENTS

Upland 5 Proration

PRORA	TING OF C	'PRORATING OF COST Monary Pool 32,000 CY on 2 year intervals	ool 32,00	0 CY on 2 ve	ear interva	sis				
	Years	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
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32,000 cy @ Joso	/ @ Joso	32,000 cy @ Joso	(0001) 0410							
	Costs	\$471,055	\$0 \$0	\$471,055	\$0	\$471,055	\$0	\$471,055	\$0	\$471,055
Disposal (J	Disposal (Joso) Site Development Costs \$2,198,95	\$2,198,955	\$0	0\$	\$0	\$0	\$0	\$0	\$0	\$0
	Costs	Costs \$211,294	\$0	\$211,294	\$0	\$211,294	\$0	\$211,294	\$0	\$211,294
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Construction Subtotal	n Subtotal	\$2,198,955	\$0	\$0	\$0	\$0	\$0	\$0	90	0.49
O,M,R,R,R Subtotal	Subtotal	\$682,349	\$0	\$682,349	\$0	\$682,349	\$0	\$682,349	\$0	\$682,349
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Totals	\$0.00	\$2,881,304	\$0	\$682,349	\$0	\$682,349	\$0	\$682,349	0\$	\$682,349
	Years	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09

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		\$17,429,0	0\$	\$471,055	\$0	55	\$471,055	\$0 \$471,0

Upland 5.a.b

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMS03: Dredging 32T CuY Confl.Uplandk29 - DMMS Dredging
PLANNING ESTIMATE - 32,000 CY OF DREDGE MATERIAL

TIME 11:53:15

TITLE PAGE

Dredging 12T CuY Confl.Upland#29
DMMS Dredging
of Snake & Clearwater Rivers
with Upland Disposal

Designed By: Walla Walla District COE Estimated By: R. Hynek and J. Davin

Prepared By: Cost Engineering Branch Kim Callan, Chief

05/28/99 05/01/99 60 Days Preparation Date: Effective Date of Pricing: Est Construction Time:

7.908 Sales Tax: M C A C E S F O R W I N D O W S Software Copyright (c) 1985-1998 by Building Systems Design, Inc. Release 1.2c

Currency in DOLLARS

EQUIP ID: NAT97C

LABOR ID: NAT99A

CREW ID: NAT99A

UPB ID: UP99EA

Hon 14 Aug 2000 Eff. Date 05/01/99 PROJECT NOTES

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMS03: Dredging 32T CuY Confl.Upland#29 - DMMS Dredging
PLANNING ESTIMATE - 32,000 CY OF DREDGE MATERIAL

TITLE PAGE

Project Description:

The Columbia and Snake Rivers, HCNary Pool dredging areas are assumed to extend throughout the vicinity of the Ice Harbor Cut Navigation Channel from Snake River Mile 3 to Snake River Mile 9, All material assumed to be disposed of utilizing a Disposal Arean at the Joso near Snake River Mile 56. The disposal site is assumed adequate to contain all materials dredged.

Basis of Design:

Planning level estimate produced utilizing the MICRO Computer Aided Cost Estimating System (MCACES) and the Cost Engineering Dredge Estimating Program (CEDEP)

anticipated. The Government Estimate is based on a 8 hour Work shall be conducted on a 8 hr/day, 1-8 hour shifts/day, 6 Overtime: Overtime is anticipated. operation. days/week.

Construction Windows:

Dredging operations will begin on 15 December, and shall not continue after 28 Feb, in any given year, due to the fish window requirements.

Sub Contracting Plan:

No Sub Contracting considered all work to be performed by Prime Contractor.

It is assumed all Disposal Transfer Sites & the In-water Disposal sites are accessible without further dredging requirements.

Common dredging methods using 10cy clamshell dredges, with the use of scows for in-weter disposal. Construction of the Disposal Area will occur during the first year. The dredging material will be offloaded from the barges on to the Disposal Area. Construction Methodology:

This work will take place during winter months. The anticipated types of soil to be incountered are sand/silts/gravels/cobbles. The use of Chanshalls and Scows has been considered, due to the anticipated existence of silt type materials within the Confluence areas. Considerations for delays due to traffic, and coordination efforts have been accounted for within the effective working time. No adverse weather conditions other than normal winter work weather has been assumed.

Equipment/Labor Availability & Distance Traveled:

Assume labor will be available within the project location. Equipment Hobilization will be from the Wouth of the Columbia River to Ice Harbor Lock and Dam, approximately 314 River Miles to allow contractors from Portland & Seattle to compete. All equipment is condisered owned - no rental equipment considered. All equipment other than dredging plant rates were computed based on the EP 1110-1-8. All equipment other than dredging plant mob and demob costs computed as 5% of direct costs.

Environmental Concerns:

Currency in DOLLARS

EQUIP ID: NAT97C LABOR ID: NAT99A

UPB ID: UP99EA CREW ID: NAT99A

Mon 14 Aug 2000 Eff. Date 05/01/99 PROJECT NOTES

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMSO3: Dredging 32T CuY Confl.Upland#29 - DMMS Dredging
PLANNING ESTIMATE - 32,000 CY OF DREDGE MATERIAL

TIME 11:53:15

TITLE PAGE

Turbidity monitoring will be required during the dredging operation. Sieve analysis testing for course grained and fine grained materials will be required for determining location of disposal area to use. No overflow will be allowed.

Contingencies:

Containments include Overhead and Profit. Escalation and contingencies are not included.

Effective dates for: Labor: General Decision Number WA990001, Modification #1 dated 3/1/99. Equipment: Cost Engineering Dredge Estimating Programs (CEDEP) and Historical Dredging Equipment information.

Currency in DOLLARS

LABOR ID: NAT99A EQUIP ID: NAT97C

UPB ID: UP99EA

CREW ID: NAT99A

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMSO3: Dredging 12T CuY Confl.Upland#19 - DMMS Dredging
PLANNING ESTIMATE - 12,000 CY OF DREDGE MATERIAL
** PROJECT RUDIRECT SUMMARY - CSI ITEM **

TIME 11:53:15

SUMMARY PAGE

TOTAL COST UNIT COST	; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	
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01 SNAKE RIVER DAMS 99									
01.12 NAVIGATION, PORTS & HARBORS									
01.12.06 DREDGING RIVERS									
01.12.06.01 MECH DREDGING, RIVER TO TRANSFER									
01.12.06.01.001- MOB, & DEMOB. AND PREWORK									
01.12.06.01.00101AA Mob. & Demob. Excavation Dredges	1.00 JB	164,631	16,463	9,055	16,638	0	3,548	210,335 210335.15	10335.15
TOTAL MOB. & DEMOB. AND PREWORK	1.00 JB	164,631	16,463	9,055	16,638	0	3,548	210,335 210335.15	10335.15
01.12.06.01.002- DREDGE, HAUL & OFF-LOAD MATERIAL									
01.12.06.01.00202BB	32000.00 CY 32900.00 CY	182,080 21,988	18,208 2,199	10,014	18,401	00	3,924	232,628	7.27
TOTAL DREDGE, HAUL & OFF-LOAD MATERIAL	32000.00 CY	204,068	20,407	11,224	20,624	0	4,398	260,720	8.15
TOTAL MECH DREDGING, RIVER TO TRANSFER	32000.00 CY	368,699	36,870	20,278	37,262	0	7,947	471,055	14.72
01.12.06.02 TRANSFER MATERIAL TO DISPOSAL									
01.12.06.02.001- HAUL MAT. TO DISPOSAL SITE									
01.12.06.02.00102AA Load, Haul, Dump & Compact D-Mat	32000.00 BCY	140,947	21,142	19,451	18,154	0	3,959	203,653	6.36
TOTAL HAUL MAT. TO DISPOSAL SITE	32000.00 CY	140,947	21,142	19,451	18,154	0	3,959	203,653	6.36
01.12.06.02.002- RESTORATION-TRANSFER/DISPL SITES									
Transfer Si			225	207	193	0	42	2,167	4334.67
01.12.06.02.00202BA Load, Haul, Dump &Compact T-Soil	213.00 BCY	1,144	172	158	147	00	32	1,653	7.76
01.12.06.02.00202KB Load, Haul, Dump &Compact T-Soil	213.00		172	158	147	0	32	1,653	7.76
TOTAL RESTORATION-TRANSFER/DISPL SITES	0.42 AC	5,288	793	730	681	0	149	7,641	18192.92
TOTAL TRANSFER MATERIAL TO DISPOSAL	32000.00 CY	146,236	21,935	20,181	18,835	0	4,108	211,294	6.60

^{01.12.06.03} DISPOSAL/TRANSFER DEVELOMENT #29

01.12.06.03.001- RIVER SIDE DIKE & WE BARGE SLIP

EQUIP ID: NAT97C LABOR ID: NAT99A

Currency in DOLLARS

UPB ID: UP99EA CREW ID: NAT99A

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DIMSO3: Dredging 32 ToV Confl.UplandM29 - DHMS Dredging
PLANNING ESTHATE - 32,000 CY OF DREDGE MATERIAL
** PROJECT INDIRECT SUMMARY - CSI ITEM **

SUMMARY PAGE

	QUANTITY UOM	TOTAL DIRECT	FOOH	ноон	PROF Misc	isc Ta	BOND	TOTAL COST UNIT COST	JNIT COST
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		1		1	1 1 2 5 6 6 6 5		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
01.12.06.03.00102AA RS Berm, Earthern Fill, L,H,D,&C	5000.00 BCY	24,600	3,690	1.414	2.599	0	375	12 678	45 8
	70000.00 SF	1,354,884	203,233	77,906	143,152	0	20,656	1,799,831	25.71
		15,096	2,264	868	1,595	0	230	20.054	52.77
	38890.00	46,796	7,019	2,691	4,944	0	713	62,163	1.60
01.12.06.03.00103AB Barge Tie-off, Piling Anchr-Block	525.00 CY	113,039	16,956	6,500	11,943	0	1,723	150,161	286.02
TOTAL RIVER SIDE DIKE & WE BARGE SLIP	1750.00 LF	1,554,415	233,162	89,379	164,234	0	23,699	2,064,888	1179.94
01.12.06.03.003- TRANSFER SITE (WEST END) DIKES									
01.12.06.03.003A02A TRANS Containment Berm, Dike Exc	200.00 CY	508	16	29	2	c	•	27	
	820.00	2,444	367	141	258	• •	3.7	1 247	90.1
	270.00 CY	686	103	39	7.3			010	200
	1.00 ACR	3,	525	201	370	0	. E.	6.649	4649.41
-	420.00 CY	1,068	160	61	113	0	16	1 418	8.
		585	80	34	62		0	777	97.6
-	2000.00	16,308	2,446	938	1.723	0	249	21 664	20.01
01.12.06.03.003D03A TRANS Overflow Strs between Pond	2.00 EA	6,249	937	359	099	0	96	8,302	4150.90
TOTAL TRANSFER SITE (WEST END) DIKES	5150.00 LF	31,349	4,702	1,803	3,312		478	41,644	8.09
01.12.06.03.005- ACCESS ROADS & HAUL ROAD									
01.12.06.03:00502AA Access Road, Clear, Grub & Shape	7500.00 LF	26,753	4,013	1,538	2,827	0	408	35,538	4.74
TOTAL ACCESS ROADS & HAUL ROAD	1.00 EA	26,753	4,013	1,538	2,827	0	408	35,538	35538.08
01.12.06.03.006- DISPOSAL SITE DIKES				v.					
DISP Containment Berm,	6700.00 CY	17,033	2,555	979	1,800	0	260	22,626	3,38
DISP Containmen		14,000	2,100	805	1,479	0	213	18,598	4649.41
DISP Settl		2,135	320	123	226	0	33	2,837	3.38
DISP Detent	460.00	1,169	175	67	124	0	1.8	1,553	3,38
01.12.06.03.006D03A DISP Overflow Strs between Ponds	2.00 EA	8,484	1,273	488	896	0	129	11,271	5635.37
TOTAL DISPOSAL SITE DIKES	7000.00 LF	42,822	6,423	2,462	4,524	0	653	56,885	8.13
TOTAL DISPOSAL/TRANSFER DEVELOMENT #29	32000.00 CY	1,655,339	248,301	95, 182	174,897	0	25,237	2,198,955	68.72

LABOR ID: NAT99A EQUIP ID: NAT97C

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

Mon 14 Aug 2000 Eff. Date 05/01/99 ERROR REPORT

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMSO3: Dredging 32T CuY Confl.Upland#29 - DMMS Dredging
PLANNING ESTIMATE - 32,000 CY OF DREDGE MATERIAL

TIME 11:53:15

ERROR PAGE

No errors detected...

. . . END OF ERROR REPORT . . .

LABOR ID: NAT99A EQUIP ID: NAT97C

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

Mon 14 Aug 2000 Eff. Date 05/01/99 TABLE OF CONTENTS

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DRMSO3: Dredging 32T CuY Confl.Upland#29 - DMMS Dredging
PLANNING ESTIMATE - 32,000 CY OF DREDGE MATERIAL

TIME 11:53:15

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SUMMARY PAGE

SUMMARY REPORTS

No Detailed Estimate...

No Backup Reports...

* * * END TABLE OF CONTENTS

Upland 6 Proration

	Years FY01 FY02 FY03 FY04	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
2,000 cy @ Joso Mechanical Dredging River to Transfer Site (Joso)	River to Transfer	Site (.logo)							
Costs \$182,34	\$182,346 Development	\$0	\$182,346	\$0	\$182,346	0\$	\$182,346	\$0	\$182,346
Costs n/a n/a Costs Transfer Material to Disposal Site (Joso)	n/a lisposal Site (Jose)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Costs	\$21,146	0\$	\$21,146	\$0	\$21,146	0\$	\$21,146	\$0	\$21,146
	\$0	\$0	\$0	\$0	0\$	0\$	\$0	\$0	\$0
	0\$	\$0	\$0	0\$	0\$	\$0	\$0	\$0	\$0
			\$0	\$0	\$	\$	\$0	\$0	\$
	0\$	\$	\$0	\$0	0\$	\$	0\$	09	90
Construction Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	80	0\$
O,M,R,R,R Subtotal	\$203,492 0	80	\$203,492	\$0	\$203,492	0\$	\$203,492	\$0	\$203,492
	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Totals \$0.00	\$203,492	\$0	\$203,492	\$0	\$203,492	0\$	\$203,492	\$0	\$203,492
Years	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09

FY11		FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
\$182,346		\$0	\$182,346	\$0	\$182,346	0\$	\$182,346	80	\$182,346	0\$
\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$21,146		\$0	\$21,146	\$0	\$21,146	\$0	\$21,146	\$0	\$21,146	\$0
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\$203,492		\$0	\$203,492	\$0	\$203,492	\$	\$203,492	\$0	\$203,492	\$0
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\$203,492		\$0	\$203,492	0\$	\$203,492	\$0	\$203,492	\$0	\$203,492	\$0
FY11		FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20

FY35	FY36 FY37 FY38 FY39	9 FY40	FY41	FY42	FY43
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\$203,492 \$0 \$203,492	\$0 \$203,492	35 \$0	\$203,492	0\$	\$203,492
FY35 FY36 FY37		EV30 EV40	FY41	FY42	FY43

FY56	0\$	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0	FY56
FY55	\$182,346	\$0	\$21,146	\$0	\$0	\$0	\$0	\$203,492	\$0	\$203,492	FY55
FY54	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	FY54
FY53	\$182,346	\$0	\$21,146	\$0	\$0	\$0	\$0	\$203,492	\$0	\$203,492	FY53
FY52	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	FY52
FY51	\$182,346	\$0	\$21,146	\$0	\$0	\$0	\$0	\$203,492	\$0	\$203,492	FY51
FY50	0\$	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	FY50
FY49	\$182,346	\$	\$21,146	\$0	\$0	\$0	\$0	\$203,492	\$0	\$203,492	FY49
FY48	\$0	\$0	\$0	\$0	0\$	\$0	0 \$	\$0	\$0	0\$	FY48
FY46 FY47	\$182,346	\$0	\$21,146	\$0	\$0	\$0	\$0	\$203,492	\$0	\$203,492	FY47
	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0\$	FY46
FY45	\$182,346	\$0	\$21,146	\$0	0\$	\$0	\$0	\$203,492	\$0	\$203,492	FY45

FY68	Ç	0\$	\$0	\$0	\$0	Ç	9 6	Q Q	Ç	\$0	FY68
FY67	\$182.346	0\$	\$21,146	\$0	\$0	C#	€	\$203,492	Ç.	\$203,492	FY67
FY66	0\$	\$0\$	\$0	\$0	\$0	O\$:	Q V	0 \$	0\$	\$0	FY66
FY65	\$182,346	\$0	\$21,146	\$0	\$0	\$	0.5	\$203,492	\$0	\$203,492	FY65
FY64	\$0	\$0	\$0	\$0	\$0	\$0	Ç.	\$0	\$0	\$0	FY64
FY63	\$182,346	\$0	\$21,146	\$0	\$0	\$0	\$0	\$203,492	0\$	\$203,492	FY63
FY62	\$0	\$0	\$0	\$0	0\$	\$0	\$0	\$0	\$0	\$0	FY62
FY61	\$182,346	\$0	\$21,146	\$0	\$0	\$0	0\$	\$203,492	\$0	\$203,492	FY61
FY60	\$	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	FY60
FY59	\$182,346	\$0	\$21,146	\$0	\$0	\$0	\$0	\$203,492	\$0	\$203,492	FY59
FY58	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	FY58
FY57	\$182,346	0\$	\$21,146	\$0	\$0	\$0	\$0	\$203,492	\$0	\$203,492	FY57

Subtotal 74 Years	0\$	\$6,746,802	\$0	\$782,402	0\$	0\$	\$0	0\$	0\$	\$7,529,204	\$0	\$7,529,204	74 Years
FY74		\$0	\$0	\$0		\$0	\$0	\$0	0\$	\$0	\$0	\$0	FY74
FY73		\$182,346	\$0	\$21,146		\$0	\$0	\$0	\$0	\$203,492	\$0	\$203,492	FY73
FY72		\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	0\$	FY72
FY71		\$182,346	\$0	\$21,146		\$0	\$0	\$0	\$0	\$203,492	\$0	\$203,492	FY71
FY70		\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	FY70
FY69		\$182,346	\$0	\$21,146		\$0	\$0	\$0	\$0	\$203,492	\$0	\$203,492	FY69

Upland 6.a

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMR12: Dredging1 2T CuY Confl.Upland#29 - DMMS Dredging
PLANNING ESTIMATE - 2,000 CY OF DREDGE MATERIAL

TIME 11:57:46

TITLE PAGE

Dredging1 2T CuY Confl.Upland#29
DMMS Dredging
of Snake & Clearwater Rivers
with Upland Disposal

Designed By: Walla Walla District COE Estimated By: R. Hynek and J. Davin

Cost Engineering Branch Kim Callan, Chief Prepared By:

05/28/99 05/01/99 60 Days Preparation Date: Effective Date of Pricing: Est Construction Time:

7.903

Sales Tax:

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Currency in DOLLARS

UPB ID: UP99EA CREW ID: NAT99A

EQUIP ID: NAT97C LABOR ID: NAT99A

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMRI2: Dredging1 2T CuY Confl.Upland#29 - DMMS Dredging
PLANNING ESTIMATE - 2,000 CY OF DREDGE MATERIAL

TIME 11:57:46

TITLE PAGE

Project Description:

The Snake River, Ice Harbor Pool dredging area is located downstream of Lower Monumental Dan. All material assumed to be disposed of utilizing a Disposal Area at Joso near Snake River Hile 56. The disposal site is assumed adequate to contain all materials dredged.

Basis of Design:

Planning level estimate produced utilizing the MICRO Computer Aided Cost Estimating Program (MCACES) and the Cost Engineering Dredge Estimating Program (CEDEP)

Overtime:

Overtime is anticipated. The Government Estimate is based on a 24 hour operation. Work shall be conducted on a 8 hr/day, 1-8 hour shifts/day, days/week.

Dredging operations will begin on 15 December, and shall not continue after 28 Feb, in any given year, due to the fish window requirements. Construction Windows:

Sub Contracting Plan:

No Sub Contracting considered all work to be performed by Prime Contractor.

It is assumed all Disposal Transfer Sites & the In-water Disposal sites are accessible without further dredging requirements.

Construction Methodology:

Common dredging methods using 10cy clamshell dredges, with the use of scows for in-water disposal. The dredging material will be offloaded from the barges on to the Disposal Area.

Conditions:

This work will take place during winter months. The anticipated types of soil to be incountered are sand/silts/gravels/cobbles. The use of clambells and Scows has been considered, due to the anticipated existence of silt type materials within the Confluence areas. Considerations for delays due to traffic, and coordination efforts have been accounted for within the effective working time. No adverse weather conditions other than normal winter work weather has been assumed. Equipment/Labor Availability & Distance Traveled:
Assume labor will be available within the project location. Equipment
Hobilization will be from the Houth of the Columbia River to Lower Monumental
Lock and Dam, approximately 165 River Hiles to allow contractors from
Portland & Seattle to compete. All equipment is considered owned - no rental
equipment considered. All equipment other than dredging plant rates were
computed based onthe EP IIIol.18. All equipment other than dredging plant mob and demob costs computed as 5% of direct costs.

Environmental Concerns: Turbidity monitoring will be required during the dredging operation. analysis testing for course grained and fine grained materials will be

Currency in DOLLARS

EQUIP ID: NAT97C LABOR ID: NAT99A

UPB ID: UP99EA CREW ID: NAT99A

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMWRIZ: Dredging1 2T CuY Confl.Upland#29 - DMMS Dredging
PLANNING ESTIMATE - 2,000 CY OF DREDGE MATERIAL

TIME 11:57:46

TITLE PAGE

required for determining location of disposal area to use. No overflow will be allowed.

Contingencies: Fotal costs include Overhead and Profit. Escalation and contingencies are not included.

Effective dates for:
Labor: General Decision Number WA990001, Modification #1 date3 3/1/99.
Equipment: Cost Engineering Dredge Estimating Programs (CEDEP) and
Historical Dredging Equipment information.

EQUIP ID: NAT97C LABOR ID: NAT99A

Currency in DOLLARS

CREW ID: NAT99A

UPB ID: UP99EA

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DH9RI2: Dredging1 2T CuY Confl.UplandR29 - DMMS Dredging
PLANNING ESTIMATE - 2,000 CY OF DREDGE MATERIAL
** PROJECT INDIRECT SUMMARY - CSI ITEM **

SUMMARY PAGE

	OUANTITY UOM	TOTAL DIRECT	FOOH	ноон	PROF Misc Ta	isc Ta	BOND	TOTAL COST UNIT COST	NIT COST
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01 SNAKE RIVER DHMS 99									
01.12 NAVIGATION, PORTS & HARBORS									
01.12.06 DREDGING RIVERS									
01.12.06.01 MECH DREDGING, RIVER TO TRANSFER					٨				
01.12.06.01.001- MOB, & DEMOB, AND PREWORK									
01.12.06.01.00101AA Mob. & Demob. Excavation Dredges	1.00 JB	119,743	11,974	6,586	12,102	0	3,098	153,503 153502.59	53502.59
TOTAL MOB. & DEMOB. AND PREWORK	1.00 JB	119,743	11,974	6,586	12,102	ó	3,098	153,503 153502.59	53502.59
01.12.06.01.002- DREDGE, HAUL & OFF-LOAD MATERIAL									
01.12.06.01.00202BB Dredging & Haul Mat to Transfer 01.12.06.01.00202BB Off Loading Barge, W/Clamshell	2000.00 CY 2000.00 CY	17,700	1,770	974	1,789	00	458	22,690	11.35
TOTAL DREDGE, HAUL & OFF-LOAD MATERIAL	2000.00 CY	22,500	2,250	1,237	2,274	0	582	28,843	14.42
TOTAL MECH DREDGING, RIVER TO TRANSFER	2000.00 CY	142,243	14,224	7,823	14,375	0	3,680	182,346	91.17
01.12.06.02 TRANSFER MATERIAL TO DISPOSAL									
01.12.06.02.001- HAUL MAT. TO DISPOSAL SITE									
01.12.06.02.00102AA Load, Haul, Dump & Compact D-Mat	2000.00 BCY	10,068	1,510	1,389	1,297	0	357	14,620	7.31
TOTAL HAUL MAT. TO DISPOSAL SITE	2000.00 CY	10,068	1,510	1,389	1,297	0	357	14,620	7.31
01.12.06.02.002- RESTORATION-TRANSFER/DISPL SITES									
	0.50 AC	1,	225	207	193	0	53	2.178	4156 66
01.12.06.02.00202BA Doad, Haul, Dump & Compact T-Soil	13.00 BCY	747	112	103	96	0	56	1,084	83.41
	13.00 BCY	747	112	103	193 96	00	53 26	2,178	4356.66
TOTAL RESTORATION-TRANSFER/DISPL SITES	0.05 AC	4,493	674	620	579	0	159	6,525 1	6,525 130505.55
TOTAL TRANSFER MATERIAL TO DISPOSAL	2000.00 CY	14,561	2,184	2,009	1,875	0	516	21,146	10.57

EQUIP ID: NAT97C LABOR ID: NAT99A

Currency in DOLLARS

UPB ID: UP99EA CREW ID: NAT99A

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMRI2: Dredging1 2T CuY Confl.Upland#29 - DMMS Dredging
PLANNING ESTIMATE - 2,000 CY OF DREDGE MATERIAL

TIME 11:57:46

ERROR PAGE

No errors detected...

Mon 14 Aug 2000 Eff. Date 05/01/99 ERROR REPORT

* * * END OF ERROR REPORT

EQUIP ID: NAT97C

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

LABOR ID: NAT99A

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Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMRI2: Dredging1 2T CuY Confl.Upland#29 - DMMS Dredging
PLANNING ESTIMATE - 2,000 CY OF DREDGE MATERIAL

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PROJECT INDIRECT SUMMARY - CSI ITEM.......

SUMMARY PAGE

No Detailed Estimate...

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No Backup Reports...

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Upland 7 Proration

PRORAT	NG OF COS	PRORATING OF COST Lower Monumental Pool 2,000 CY on 2 year intervals	umenta FY02	Pool 2,000	CY on 2 y	ear intervals	FYOR	FY07	FYOR	FY09
2,000 cy @ Joso Mechanical Dradgin	Joso Dradalna Bive	ar to Tranefar Ci	to (Lloca)							
Dienosal / Lo	Medianical Dieuging, myer (Conta Costs \$186,48	Costs \$186,480 \$0	\$0	\$186,480	0\$	\$186,480	\$0	\$186,480	\$0	\$186,480
o) ipendera	Costs	n/a	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
ıranster Ma	i ranster Material to Disposal Site (Joso) Costs \$21,146	\$21,146	\$0	\$21,146	0\$	\$21,146	\$0	\$21,146	\$0	\$21,146
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				\$0	\$0	\$0	\$0	\$0	\$0	\$
		\$0	\$0	\$0	.0\$	\$0	\$0	\$0	\$0	\$0
Construction Subtotal	Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	0\$	\$0	\$0
O,M,R,R,R Subtotal	Subtotal	\$207,626	\$0	\$207,626	\$0	\$207,626	\$0	\$207,626	\$0	\$207,626
		O 0\$	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Totals	\$0.00	\$207,626	\$0	\$207,626	\$0	\$207,626	\$0	\$207,626	\$0	\$207,626
	Years	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FYOB	FY09

j	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
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	\$0	\$207,626	\$0	\$207,626	0\$	\$207,626	\$0	\$207,626	\$0	\$207,626	0\$
	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20

FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32
	\$0	\$0 \$186,480	\$0	\$186,480	\$0	\$186,480	\$0	\$186,480	\$0	\$186,480	\$0
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FY60 FY61

Subtotal 74 Years	0\$	\$6,899,760	0\$	\$782,402	0\$	0\$	\$0	0\$	\$0	\$7,682,162	0\$	\$7,682,162	74 Years
FY74		0\$	\$0	\$		\$0	\$0	\$0	80	\$	\$0	\$0	FY74
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FY72		\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	0\$	FY72
FY71		\$186,480	\$0	\$21,146		\$0	\$0	\$0	\$0	\$207,626	\$0	\$207,626	FY71
FY70		\$0	\$	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	FY70
FY69		\$186,480	\$0	\$21,146		\$0	\$0	\$0	\$0	\$207,626	\$0	\$207,626	FY69

Upland 7.a

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMRM2: DredgingH 2T CuY Confl.UplandH29 - DMMS Dredging
PLANNING ESTIMATE - 2,000 CY OF DREDGE MATERIAL

TIME 12:00:00

TITLE PAGE

DredgingM 2T CuY Confl.Upland#29
DMMS Dredging
of Snake & Clearwater Rivers
with Upland Disposal

Designed By: Walla Walla District COE Estimated By: R. Hynek and J. Davin

Prepared By: Cost Engineering Branch Kim Callan, Chief

05/28/99 05/01/99 60 Days Preparation Date: Effective Date of Pricing: Est Construction Time:

7.908 Sales Tax: M C A C E S F O R W I N D O W S Software Copyright (c) 1985-1998 by Building Systems Design, Inc. Release 1.2c

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

EQUIP ID: NAT97C LABOR ID: NAT99A

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMRM2: DredgingM 2T CuY Confl.Upland#29 - DWMS Dredging
PLANNING ESTIMATE - 2,000 CY OF DREDGE MATERIAL

TITLE PAGE

Project Description:

The Snake River, Lower Monumental Pool dredging area is located downstream of Little Goose Dam and near the confluence of the Palouse and Snake River confluence. All material assumed to be disposed of utilizing a Disposal Area at Joso near Snake River Mile 56. The disposal site is assumed adequate to contain all materials dredged.

Basis of Design:

Planning level estimate produced utilizing the MICRO Computer Aided Cost Estimating Program (MCACES) and the Cost Engineering Dredge Estimating Program (CEDEP)

Gvertime is anticipated. The Government Estimate is based on a 24 hour operation. Work shall be conducted on an 8 hr/day, 1-8 hour shift/day, 5 $\,$

Construction Windows:

Dredging operations will begin on 15 December, and shall not continue after 28 Feb. in any given year, due to the fish window requirements.

Sub Contracting Plan:

No Sub Contracting considered all work to be performed by Prime Contractor.

It is assumed all Disposal Transfer Sites & the In-water Disposal sites are

Common dredging methods using 10cy clamshell dredges, with the use of scows for in-water disposal. The dredging material will be offloaded from the barges on to the Disposal Area. Construction Methodology:

accessible without further dredging requirements.

This work will take place during winter months. The anticipated types of soil to be incountered are sand/silts/gravels/cobbles. The use of clamshells and Scows has been considered, due to the anticipated existence of silt type materials within the Confluence areas. Considerations for delays due to traffic, and coordination efforts have been accounted for within the effective working time. No adverse weather conditions other than normal winter work weather has been assumed.

Equipment/Labor Availability & Distance Traveled:

Mobilization will be available within the project location. Equipment Mobilization will be from the Mouth of the Columbia River to Little Goose Lock and Dam, approximately 394 River Miles to allow contractors from Portland & Seattle to compete. All equipment to considered owned - no rental equipment cornsidered. All equipment other than dredging plant rates were computed based on the EP 1110-1-8. All equipment to the than dredging plant mob and demob costs computed as 5% of direct costs.

Turbidity monitoring will be required during the dredging operation. Sieve

EQUIP ID: NAT97C LABOR ID: NAT99A

Currency in DOLLARS

UPB ID: UP99EA

CREW ID: NAT99A

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMRM2: DredgingH 2T CuY Confl.UplandH29 - DHMS Dredging
PLANNING ESTIMATE - 2,000 CY OF DREDGE HATERIAL

TIME 12:00:00

TITLE PAGE

analysis testing for course grained and fine grained materials will be required for determining location of disposal area to use. No overflow will be allowed.

Contingencies: Total costs include Overhead and Profit. Escalation and contingencies are not included.

Effective dates for:
Labor: General Decision Number WA990001, Modification #1 dated 1/1/99.
Equipment: Cost Engineering Dredge Estimating Programs (CEDEP) and Historical Dredging Equipment information.

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

EQUIP ID: NAT97C

LABOR ID: NAT99A

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMRM2: DredgingM 2T CUY Coff.LuDlandM29 - DMNS Dredging
PLANNING ESTHATE - 2.000 CY OF DREDGE MATERIAL
** PROJECT INDIRECT SUMMARY - CSI ITEM **

TIME 12:00:00

SUMMARY PAGE 1

TOTAL COST UNIT COST GNOB PROF Misc TA НООН FOOH QUANTITY UOM TOTAL DIRECT

01 SNAKE RIVER DHMS 99									
01.12 NAVIGATION, PORTS & HARBORS									
01.12.06 DREDGING RIVERS									
01.12.06.01 MECH DREDGING, RIVER TO TRANSFER									
01.12.06.01.001- MOB. & DEMOB. AND PREWORK									
01.12.06.01.00101AA Mob. & Demob. Excavation Dredges	1.00 JB	127,546	12,755	7,015	12,890	0	3,280	163,486	163,486 163485.53
TOTAL HOB. & DEMOB. AND PREWORK	1.00 JB	127,546	12,755	7,015	12,890	0	3,280	163,486	163,486 163485.53
01.12.06.01.002- DREDGE, HAUL & OFF-LOAD MATERIAL									
01.12.06.01.00202BB Dredging & Haul Mat to Transfer 01.12.06.01.00202EB Off Loading Barge, W/Clamshell	2000.00 CY 2000.00 CY	13,140	1,314	723	1,328	00	338	16,843	8.42
TOTAL DREDGE, HAUL & OFF-LOAD NATERIAL	2000.00 CY	17.940	1,794	987	1,813	0	461	22,994	11.50
TOTAL MECH DREDGING, RIVER TO TRANSFER	2000.00 CY	145,486	14,549	8,002	14,703	0	3,741	186,480	93.24
01.12.06.02 TRANSFER MATERIAL TO DISPOSAL									
01.12.06.02.001- HAUL MAT. TO DISPOSAL SITE									
01.12.06.02.00102AA Load, Haul, Dump & Compact D-Mat	2000.00 BCY	10,068	1,510	1,389	1,297	0	357	14,620	7.31
TOTAL HAUL MAT. TO DISPOSAL SITE	2000.00 CY	10,068	1,510	1,389	1,297	0	357	14,620	7.31
01.12.06.02.002- RESTORATION-TRANSFER/DISPL SITES									
	0.50 AC	1,500	225	207	193	0	53	2,178	4356.66
Load, Hau	13.00 BCY	747	112	103	96	0	26	1,084	83.41
01.12.06.02.00202KB Load, Haul, Dump &Compact T-Soil	13.00 BCY	1,500	225	207	193 96	00	53	2,178	4356.66
TOTAL RESTORATION-TRANSFER/DISFL SITES	0.05 AC	4,493	674	620	579	0	159	6,525	6,525 130505.55
TOTAL TRANSFER MATERIAL TO DISPOSAL	2000.00 CY	14,561	2,184	2,009	1,875	0	516	21,146	10.57

EQUIP ID: NAT97C LABOR ID: NAT99A

Currency in DOLLARS

UPB ID: UP99EA CREW ID: NAT99A

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMRM2: DredgingM 2T CuY Confl.UplandM29 - DMMS Dredging
PLANNING ESTIMATE - 2,000 CY OF DREDGE MATERIAL

TIME 12:00:00

ERROR PAGE

No errors detected...

Mon 14 Aug 2000 Eff. Date 05/01/99 ERROR REPORT

END OF ERROR REPORT

EQUIP ID: NAT97C LABOR ID: NAT99A

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

Mon 14 Aug 2000 Eff. Date 05/01/99 TABLE OF CONTENTS

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMRH2: DredgingH 2T CuY Confl.Upland#29 - DMMS Dredging
PLANNING ESTIMATE - 2,000 CY OF DREDGE MATERIAL

SUMMARY REPORTS

No Detailed Estimate...

No Backup Reports...

END TABLE OF CONTENTS

B-223

PROJECT INDIRECT SUMMARY - CSI ITEM.......

SUMMARY PAGE

TIME 12:00:00

CONTENTS PAGE

Upland 8 Proration

Years FY01 FY02 FY03 FY04	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
4,000 cy @ Joso Mechanical Dredging, River to Transfer Site (Joso)	r to Transfer Sit	e (Joso)							
Costs \$207 Disposal (Joso) Site Development	\$207,318	\$0	\$207,318	\$0	\$207,318	\$0	\$207,318	\$0	\$207,318
Costs n/a Transfer Material to Disposal Site (Joso)	n/a al Site (Joso)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Costs	\$35,766	\$0	\$35,766	\$0	\$35,766	0\$	\$35,766	\$0	\$35,766
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FY41		\$207,318	\$0	\$35,766	0\$	\$0	\$0	\$0	\$243,084	\$0	\$243,084	FY41
FY40		\$0	\$0	\$0	\$0	\$0	0\$	\$0	\$0	\$0	\$0	FY40
FY39		\$207,318	\$0	\$35,766	\$0	\$0	\$0	\$0	\$243,084	\$0	\$243,084	FY39
FY38		\$0	\$0	\$0	\$0	\$0	\$0	\$	\$0	\$0	0\$	FY38
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FY36		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	FY36
FY35		\$207,318	\$0	\$35,766	\$0	\$0	\$0	\$0	\$243,084	\$0	\$243,084	FY35
FY34		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	FY34
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FY57	FY58	FY59	FY60	FY61	FY62	FY63	FY64	FY65	FY66	FY67	FY68
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FY57	FY58	FY59	FY60	FY61	FY62	FY63	FY64	FY65	FY66	FY67	FY68

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Subtotal 74 Years	·	0\$	\$7,670,766	0\$	\$1,323,342	\$0	0\$	0\$	•	\$0	\$0	\$8,994,108	\$0	\$8,994,108	74 Years
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FY73			\$207,318	0\$	\$35,766		\$0	\$0		\$0	\$0	\$243,084	\$0	\$243,084	FY73
FY72			\$0	0\$	\$0		\$0	\$0		\$0	\$0	\$0	\$0	\$0	FY72
FY71			\$207,318	\$0	\$35,766		\$0	\$0		\$0	\$0	\$243,084	\$0	\$243,084	FY71
FY70			\$0	\$0	\$0		\$0	0\$		\$0	\$0	\$0	\$0	0\$	FY70
FY69			\$207,318	\$	\$35,766		0\$	\$0		\$0	\$0	\$243,084	\$0	\$243,084	FY69

Upland 8.a

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMWRG4: DredgingG 4T CuY Confl.Upland#29 - DMMS Dredging
PLANNING ESTIMATE - 4,000 CY OF DREDGE MATERIAL

TIME 12:00:58

TITLE PAGE

DredgingG 4T CuY Confl.Upland#29 DMMS Dredging of Snake & Clearwater Rivers with Upland Disposal

Designed By: Walla Walla District COE Estimated By: R. Hynek and J. Davin

Prepared By: Cost Engineering Branch Kim Callan, Chief

05/28/99 05/01/99 60 Days Preparation Date: Effective Date of Pricing: Est Construction Time:

7.908 Sales Tax: M C A C E S F O R W I N D O W S Software Copyright (0) 1985-1998 by Building Systems Design, Inc. Release 1.2c

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

EQUIP ID: NAT97C LABOR ID: NAT99A

Tri-Service Automated Cost Engineering System (TRACES)
Tr DMHGG4: DredgingG 4T CuY Confl.Upland#29 - DMMS Dredging
PLANNING ESTIMATE - 4,000 CY OF DREDGE MATERIAL PROJECT DWMRG4:

TIME 12:00:58

TITLE PAGE

Project Description:

The Snake River, Little Goose Pool dredging area is located downstream of Over Granite Dam and at Schultz Bar located near Snake River Mile 100. All material assumed to be disposed of utilizing a Disposal Area at Joso near Snake River Mile 56. The disposal site is assumed adequate to contain all materials dredged.

Basis of Design:

Planning level estimate produced utilizing the MICRO Computer Aided Cost Estimating System (MCACES) and the Cost Engineering Dredge Estimating Program (CEDEP)

Overtime is anticipated. The Government Estimate is based on a 24 hour operation. Work shall be conducted on a 8 hr/day, 1-8 hour shift/day, \dot{z}

Construction Windows:

Dredging operations will begin on 15 December, and shall not continue after 28 Feb, in any given year, due to the fish window requirements.

No Sub Contracting considered all work to be performed by Prime Contractor. Sub Contracting Plan:

It is assumed all Disposal Transfer Sites & the In-water Disposal sites are accessible without further dredging requirements:

Construction Methodology:

Common dredging methods using 10cy clamshell dredges, with the use of scows for in-water disposal. The dredging material will be offloaded from the barges on to the Disposal Area.

This work will take place during winter months. The anticipated types of soil to be incountered are sand/silts/gravels/cobbles. The use of Clamshells and Scows has been considered, due to the anticipated existence of silt type materials within the Confluence areas. Considerations for delays due to traffic, and coordination efforts have been accounted for within the effective working time. No adverse weather conditions other than normal winter work weather has been assumed.

Equipment/Labor Availability & Distance Traveled:
Assume labor will be available within the project location. Equipment
Mobilization will be from the Wouth of the Columbia River to Lower Granite
Lock and Dam, approximately 411 River Miles to allow contractors from
Portland & Seattle to compete. All equipment is considered owned - no rental equipment considered. All equipment other than dredging plant rates were computed based on the EP 1110-1-8. All equipment other than dredging plant mob and demob costs computed as 5% of direct costs.

Environmental Concerns:

Turbidity monitoring will be required during the dredging operation. Sieve

Currency in DOLLARS

UPB ID: UP99EA

CREW ID: NAT99A

LABOR ID: NAT99A

EQUIP ID: NAT97C

Tri-Service Automated Cost Engineering System (TRACES) PROJECT DMMRG4: DredgingG 4T CuY Confl.Upland129 - DMMS Dredging PLANNING ESTIMATE - 4,000 CY OF DREDGE MATERIAL

TIME 12:00:58

TITLE PAGE

analysis testing for course grained and fine grained materials will be required for determining location of disposal area to use. No overflow will be allowed.

Contingencies: Total costs include Overhead and Profit. Escalation and contingencies are not included,

Effective dates for: Labor: General Decision Number WA990001, Modification #1 dated 3/1/99. Equipment: Cost Engineering Dredge Estimating Programs (CEDEP) and Historical Dredging Equipment information.

B-235

EQUIP ID: NAT97C .LABOR ID: NAT99A

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

Mon 14 Aug 2000 Eff. Date 05/01/99

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DWHRG4: DredgingG 4T CUY CORTI.Upland8129 - DWHS Dredging
PLANTRE STITMATE - 4,000 CY OF DREDGE MATERIAL
** PROJECT INDIRECT SURMARY - CSI ITEM **

SUMMARY PAGE 1

4356.66 40.16 4356.66 40.16 170,782 170782.42 7.60 9.13 TOTAL COST UNIT COST 170,782 170782.42 51.83 7.31 7.31 108754.63 30,387 6,149 36,536 29,241 6,525 2,178 1,084 2,178 1,084 207,318 35,766 29,241 BOND 3, 335 3,335 593 120 714 4,049 713 159 872 713 53 26 26 . 0 0 PROF Misc 'Ta 13,473 2,397 2,882 16,355 2,593 13,473 3,172 2,593 193 96 193 96 579 HOOH 7,332 7,332 1,569 8,901 2,779 3,399 207 103 207 103 2,779 FOOH 13,331 2,372 2,852 16,183 3,020 13,331 225 112 225 112 3,69. 3,020 674 133,311 28,520 23,720 20,135 20,135 QUANTITY UOM TOTAL DIRECT 133,311 1,500 747 1,500 4,493 161,831 24,629 0.50 AC 27.00 BCY 0.50 AC 27.00 BCY 4000.00 CY 4000.00 CY 4000.00 BCY 1.00 JB 1.00 JB 4000.000 CY 4000.00 CY 4000.00 CY 0.06 AC 4000.00 CY 01.12.06.01.001-_01AA Mob. & Demob. Excavation Dredges 01.12.06.02.001-_02AA Load, Haul, Dump & Compact D-Mat Transfer Site, Hydro Seeding Load, Haul, Dump &Compact T-Soil Disposal Site, Hydro Seeding Load, Haul, Dump &Compact T-Soil TOTAL DREDGE, HAUL & OFF-LOAD MATERIAL TOTAL MECH DREDGING, RIVER TO TRANSFER TOTAL RESTORATION-TRANSFER/DISPL SITES TOTAL TRANSFER MATERIAL TO DISPOSAL DREDGE, HAUL & OFF-LOAD MATERIAL RESTORATION-TRANSFER/DISPL SITES TOTAL HAUL MAT. TO DISPOSAL SITE TOTAL MOB. & DEMOB. AND PREWORK 01.12.06.01 MECH DREDGING, RIVER TO TRANSFER HAUL MAT. TO DISPOSAL SITE 01.12.06.01.001- MOB. & DEMOB. AND PREWORK 01.12.06.02 TRANSFER MATERIAL TO DISPOSAL 01.12 NAVIGATION, PORTS & HARBORS 01.12.06 DREDGING RIVERS 01 SNAKE RIVER DMMS 99 01.12.06.02.002-_02AA 1 01.12.06.02.002-_02BA 1 01.12.06.02.002-_02KA 1 01.12.06.02.002-_02KB 1 01.12.06.01.002-01.12.06.02.001-01.12.06.02.002-

LABOR ID: NAT99A EQUIP

ID: NAT97C

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMRG4: DredgingG 4T CuY Confl.Upland#29 - DMMS Dredging
PLANNING ESTIMATE - 4,000 CY OF DREDGE MATERIAL

TIME 12:00:58

ERROR PAGE

No errors detected...

Mon 14 Aug 2000 Eff. Date 05/01/99 ERROR REPORT

END OF ERROR REPORT

EQUIP ID: NAT97C LABOR ID: NAT99A

Currency in DOLLARS

CREW ID: NAT99A UPB ID: UP99EA

B-237

Mon 14 Aug 2000 Eff. Date 05/01/99 TABLE OF CONTENTS

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMRG4: DredgingG 4T CuY Confl.Upland429 - DMMS Dredging
PLANNING ESTIMATE - 4,000 CY OF DREDGE MATERIAL

SUMMARY PAGE

TIME 12:00:58

CONTENTS PAGE

No Detailed Estimate...

PROJECT INDIRECT SUMMARY - CSI ITEM

SUMMARY REPORTS

No Backup Reports...

* * * END TABLE OF CONTENTS * * *

Upland 9 Proration

Years	Years FY01 FY02 FY04 FY05 FY06 FY07 FY09	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
7,000 cy @ Joso									
Mechanical Dredgin	Mechanical Dredging, River to Transfer Site (Joso)	Site (Joso)							
Costs	\$0	\$0	\$0	\$0	\$115,500	\$0	\$0	\$0	\$0
Disposal (Joso) Site Development	Development								
Costs	\$0	\$0	\$0	\$0	\$11,382,888	\$0	\$0	\$0	\$0
Transfer Material to Disposal Site (Joso)	Disposal Site (Jose	•							
Costs	0\$	\$0	\$0	\$0	\$113,750	\$0	\$0	\$0	\$0
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	0\$	\$0	\$0	\$0	\$0	\$0	\$	\$0	\$0
Construction Subtotal		\$0	\$0		\$11,382,888	\$0	\$0	80	0\$
O,M,R,R,R Subtotal		\$0	\$0	\$0	\$229,250	\$0	\$0	\$0	\$0
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	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Totals \$0.00	0\$	0\$	0\$	0\$	\$0 \$11,612,138	0\$	0\$	\$0	\$0
Years	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09

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FY33	FY34	FY35	FY36	FY37	FY38	FY39	FY40	FY41	FY42	FY43	FY44
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FY33	FY34	FY35	FY36	FY37	FY38	FY39	FY40	FY41	FY42	FY43	FY44

ı	FY45		FY46 FY47 FY48	FY48	FY49	FY50	FY51	FY52	FY53	FY54	FY55	FY56
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	74 Years	FY74	FY73	FY72	FY71	FY70	FY69
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Checks	0\$						
						,	
	Subtotal 74 Years	FY74	FY73	FY72	FY71	FY70	FY69

Upland 9.a.b

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMP01: Dredged Material Management Plan - DMMP Joso Contingency Upland
BUDGET ESTIMATE JOSO CONTINGENCY DISPOSAL SITE

Wed 03 Oct 2001 Eff. Date 06/11/01

TITLE PAGE

Dredged Material Management Plan DMMP Joso Contingency Upland Disposal Site

Designed By: Walla Walla District COE Estimated By: Tafedeo Sana

Cost Engineering Branch Kim Callan, Chief Prepared By:

B-248

06/11/01 06/11/01 180 Days

Preparation Date: Effective Date of Pricing: Est Construction Time:

7.90% Sales Tax: M C A C E S for Windows Software Copyright (c) 1985-1997 by Building Systems Design, Inc. Release 1.2

Currency in DOLLARS

UPB ID: UP99EA

CREW ID: USNBEN

Wed 03 Oct 2001 Eff. Date 06/11/01 PROJECT NOTES

unloading area will be constructed at the West end of the Joso Site. Landings the southern shore of the Snake River between River Miles 56.5 and 56.8. The dredged material storage areas will be developed adjacent to the slip for dewatering. One temporary storage area will be completely lined. A haul road Disposal site will consist of two types of material disposal, about 25% of will be formed on either side of the slip for crane access. Two temporary the pit will be lined for contaminated material storage. A barge slip and will be developed to transport material from the unloading area/temporary Project Description: The JOSO Dredge Material Disposal Site is located storage to the permanent disposal area.

Basis of Design: Estimate based on preliminary drawings provided by soils/civil branch. Excavation and fill quantities provided by soils/civil branch. Estimate for Sheet Pile and in-water Mooring dolphins based on Port of Benton Modifications Estimate, Revision #4.

Overtime: Overtime is anticipated. The Government Estimate is based on a 8 hour operation. Work shall be conducted on a 8 hr/day, 1-8 hour shifts/day, 6 days/week.

restricted to beginning 1 November 2002 extending through 15 December 2002. Construction Windows: Most work will be accomplished in dry conditions between July 2002 and November 2002. Remaining work will be in-water and

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Sub Contracting Plan: The following subcontractors included in the estimate: PD - Pile Driving Subcontractor LS - Landscaping Subcontractor Site Access: The Joso Disposal Site is Located along the Southern Shore of the Snake River between River Miles 56.5 and 56.8. It is assumed the Site is accessible without further dredging requirements. Construction Methodology: The construction methodology is standard marine and civil contruction.

considered, due to the anticipated existence of silt type materials within Conditions: This work will take place during Summer through Winter months. time. No adverse weather conditions other than normal winter work weather the Confluence areas. Considerations for delays due to traffic, and coordination efforts have been accounted for within the effective working sand/silts/gravels/cobbles. The use of Clamshells and Scows has been The anticipated types of soil to be incountered are

Pasco, Kennewick, Washington. Marine floating plant for dolphin construction available within a 100-mile radius which includes the cities of Richland, Equipment/Labor Availability & Distance Traveled: Equipment and Labor is is available from the Portland, Oregon and Vancouver, Washington area, approximately 275 miles distance.

dredging operation. Sieve analysis testing for course grained and fine grained materials will be required for determining location of disposal area Environmental Concerns: Turbidity monitoring will be required during No overflow will be allowed.

Wed 03 Oct 2001 Eff. Date 06/11/01 PROJECT NOTES

TITLE PAGE

UPB ID: UP99EA

EQUIP ID: NAT99A

Currency in DOLLARS

CREW ID: USNBEN

Contingencies: No Contingency

Profit: 9.26% profit developed using the weighted guidelines method.

Effective dates for:

Equipment: NAT99A - EP 1110 - region 8, Jun99 99 Labor and Equipment Rates used as Requested by Project Manager Jack Sands to correspond with other estimates developed for DMMP/EIS. crews: USNBEN - Nat'l crews database-A - eff. Jan96 UPB: UP99EA Nat'l UPB eff. Jan99 Labor: General Decision Number WA990001, Modification #1 dated 3/1/99.

2001	06/11/01
03 Oct	Date
Wed (Eff.

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMPO1: Dredged Material Management Plan - DMMP Joso Contingency Upland
BUDGET ESTIMATE JOSO CONTINGENCY DISPOSAL SITE
** PROJECT INDIRECT SUMMARY - BID ITEM **

TIME 14:57:14

SUMMARY PAGE

		QUANTITY UOM	TOTAL DIRECT	FOOH	НООН	PROF Mis	Misc Ta	BOND	TOTAL COST UNIT	UNIT COST
AA SNAKE RIVER DMMP										
AA.12 NAVIGATION PORTS AND HARBORS	RTS AND HARBORS									
AA.12.01 UPLAND DISPOSAL SITE	POSAL SITE									
AA.12.01.01 JOSO SITE DEVELOPEMENT	TE DEVELOPEMENT									
AA.12.01.01.001A MO	MOBILIZATION AND DEMOBILIZATION		148,806		8,184	15,915	, 0	1,533	189,319	189319.22
	BARGE SLIP EXCAV & GRAVEL FILL	1.00 JOB	128,532	12,853	7,069	13,747	0	1,352	163,553	163553.23
_	CHANNEL DREDGING		74,919		4, 121	8,013	0	788	95,332	10.59
AA.12.01.01.003C IN	IN-WATER STRUCTURES (DOLPHINS)	2.00	115,072		6,329	12,307	0	1,133	146,348	73174.19
_	JNLOADING AREA EXCAVATION & FILL	1.00	2,863,429		157,489	306,252	0	30, 122	3,643,635	3643635
	CONTAINMENT BERMS		645,917		35,525	69,083	0	6, 795	912	821912.19
	OMEMBRANE LINER AND FILL	124560.00 SY	2,756,098		151,585	294,773	0	28,993	059	28.16
	WHARF STRUCTURAL COMPONENTS	1.00 EA	1,811,116		99,611	193,704	0	17,833	377	2303377
AA.12.01.01.007A HA	HAUL ROAD	6480.00 LF	336,245		18,493	35,962	0	3,537	427,863	66.03
AA.12.01.01.008A MI	MISCELLANEOUS SITE WORK	1.00 JOB	296'59		3,628	7,055	0	1,249	84,489	84488.99
TOTAL JO	TOTAL JOSO SITE DEVELOPEMENT	1.00 EA	8,946,096	894,610	492,035	956,812	0	93,335	11,382,888	11382888

B-251

Wed 03 Oct 2001 Eff. Date 06/11/01

Tri-Service Automated Cost Engineering System (TRACES) PROJECT DMMPO1: Dredged Material Management Plan - DMMP Joso Contingency Upland BUDGET ESTIMATE JOSO CONTINGENCY DISPOSAL SITE ** PROJECT DIRECT SUMMARY - BID ITEM **

TIME 14:57:14 SUMMARY PAGE T COST

	QUANTITY UOM	MHRS	LAB	EQUIP	MAT	OTHER	TOTAL COST UNIT COST	UNIT COST
AA SNAKE RIVER DMMP								
AA.12 NAVIGATION PORTS AND HARBORS								
AA.12.01 UPLAND DISPOSAL SITE								
AA.12.01.01 JOSO SITE DEVELOPEMENT								
AA.12.01.01.001A MOBILIZATION AND DEMOBILIZATION	1.00 EA	1,454	54,611	94,195	0	0	148,806	148806.22
BARGE SLIP EXCAV &	1.00 JOB	2,057	63,459	54,435	10,668	0	128,532	128531.82
_	9000.00 CY	432	30,631	44,288		0 0	74,919	8.32
AA.12.01.01.005C IN-WALER SIRUCIORES (DOLPHINS) AA.12.01.01.004A INFOADING AREA EXCAVATION & FILL	1.00 JOB	10, 149	342,889	1, 502, 931	17,609		2,0,011	2863429
	1.00 JOB	12,665	397,962	247,955		0	645,917	645917.36
	124560.00 SY	24,375	785,975	464,845	•	0	2,756,098	22.13
	1.00 EA	8,509	306,175	102,740	~	0	1,811,116	1811116
AA.12.01.01.007A HAUL ROAD AA.12.01.01.008A MISCELLANEOUS SITE WORK	6480.00 LF 1.00 JOB	3,782	168,386	167,859	0 47.433	00	336,245	51.89
TOTAL JOSO SITE DEVELOPEMENT	1.00 EA	64,393 3	,184,477	64,393 3,184,477 2,727,735 3,033,884	3,033,884	0	8,946,096	8946096
FIELD OFFICE OVERHEAD	10.00 %						894,610	
SUBTOTAL HOME OFFICE OVERHEAD	% 00°5						9,840,705	
SUBTOTAL PROFIT	9.26 %						10,332,740 956,812	
SUBTOTAL BOND	0.83 %						11,289,552	

11,382,888

TOTAL INCL INDIRECTS

Wed 03 Oct 2001 Eff. Date 06/11/01

TITLE PAGE

DMMP JOSO DISP. SITE VE STUDY DMMP Joso Contingency Upland Disposal Site

Designed By: Walla Walla District COE Estimated By: Robert Hynek

B-253

Cost Engineering Branch Kim Callan, Chief Prepared By:

08/10/01 06/11/01 180 Days Preparation Date: Effective Date of Pricing: Est Construction Time:

7.90% Sales Tax: M C A C E S for Windows Software Copyright (c) 1985-1997 by Building Systems Design, Inc. Release 1.2

Currency in DOLLARS

Wed 03 Oct 2001 Eff. Date 06/11/01

fri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMPRV: DMMP JOSO DISP. SITE VE STUDY - DMMP Joso Contingency Upland
BUDGET ESTIMATE JOSO DISPOSAL REV.
** PROJECT OWNER SUMMARY - BID ITEM **

TIME 15:49:48

SUMMARY PAGE

	QUANTITY UOM	QUANTITY UOM CONTRACT COST CONTINGN ESCALATN E & D S & A TOTAL COST UNIT COST	CONTINGN	ESCALATN	E & D	SRA	TOTAL COST L	INIT COST
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AA SNAKE RIVER DMMP								
AA.12 NAVIGATION PORTS AND HARBORS								
AA.12.02 JOSO DISPOSAL & 1st YR. DREDGING								
AA.12.02.02 1st YEAR DREDGING COST								
AA.12.02.02. 1 DREDGING COST	7000.00 CY	115,500 0 0 0 0	0	0	0	0	115,500	16.50
TOTAL 1st YEAR DREDGING COST	1.00 CY	115,500	0	0	0	0	115,500 115500.00	15500.00

UPB ID: UP99EA

CREW ID: USNBEN

2001	06/11/01
03 Oct	Date
Wed	Eff.

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMPRV: DMMP JOSO DISP. SITE VE STUDY - DMMP Joso Contingency Upland
BUDGET ESTIMATE JOSO DISPOSAL REV.
** PROJECT INDIRECT SUMMARY - BID ITEM **

TIME 15:49:48 SUMMARY PAGE

		QUANTITY UOM TOTAL DIRECT	FOOH	НООН	PROF Misc Ta	: Ta	BOND	TOTAL COST UNIT COST	UNIT COST
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AA SNAKE RIVER DMMP									
AA.12 NAVIGATION PORTS AND HARBORS		9							
AA.12.02 JOSO DISPOSAL & 1st YR. DREDGING									
AA.12.02.02 1st YEAR DREDGING COST									
AA.12.02.02. 1 DREDGING COST	7000.00 CY	0 0 0 0 0 0	0	0	0	0	0	115,500	16.50
TOTAL 1st YEAR DREDGING COST	1.00 CY	115,500	0	0	0	0	0	115,500 115500.00	15500.00

UPB ID: UP99EA

CREW ID: USNBEN

2001	06/11/01
0	Eff. Date

Tri-Service Automated Cost Engineering System (TRACES)
PROJECT DMMPRV: DMMP JOSO DISP. SITE VE STUDY - DMMP Joso Contingency Upland
BUDGET ESTIMATE JOSO DISPOSAL REV.
** PROJECT DIRECT SUMMARY - BID ITEM **

TIME 15:49:48 SUMMARY PAGE

	QUANTITY UOM MHRS	MHRS	LAB	EQUIP	MAT	OTHER	MAT OTHER TOTAL COST UNIT COST	JNIT COST
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AA SNAKE RIVER DMMP								
AA.12 NAVIGATION PORTS AND HARBORS								
AA.12.02 JOSO DISPOSAL & 1st YR. DREDGING								٠
AA.12.02.02 1st YEAR DREDGING COST								
AA.12.02.02. 1 DREDGING COST	7000.00 CY	0	0	0	0	0 115,500	115,500	16.50
TOTAL 1st YEAR DREDGING COST	1.00 CY	0	0	0 0 0 0 0 0 0 0 115,500	0	0 115,500	115,500	115,500 115500.00

B-256